MODERN PACKAGING

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IN THIS ISSUE:

Notions & novelties put the selling punch on packaging today

Packagerama for Packaging

VOL. 29 NO. 8

Illustration Courtesy of THE AMERICAN TOBACCO COMPAN

9 adhesives protect a cigarette's fine taste

Few people know how freshness—*factory freshness* is preserved in making, packaging and shipping their favorite cigarette.

Adhesives (1) seal cigarettes, (2) attach cork and filter tips, (3) laminate foil and paper linings, (4) seal paper packs, (5) attach revenue stamps, (6) seal cellophane wraps, (7) form and seal cartons, (8) close shipping cases, (9) overcoat shipping labels.

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CHEMICAL PROGRESS WEEK-APRIL 23-29

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MODERN PACKAGING®

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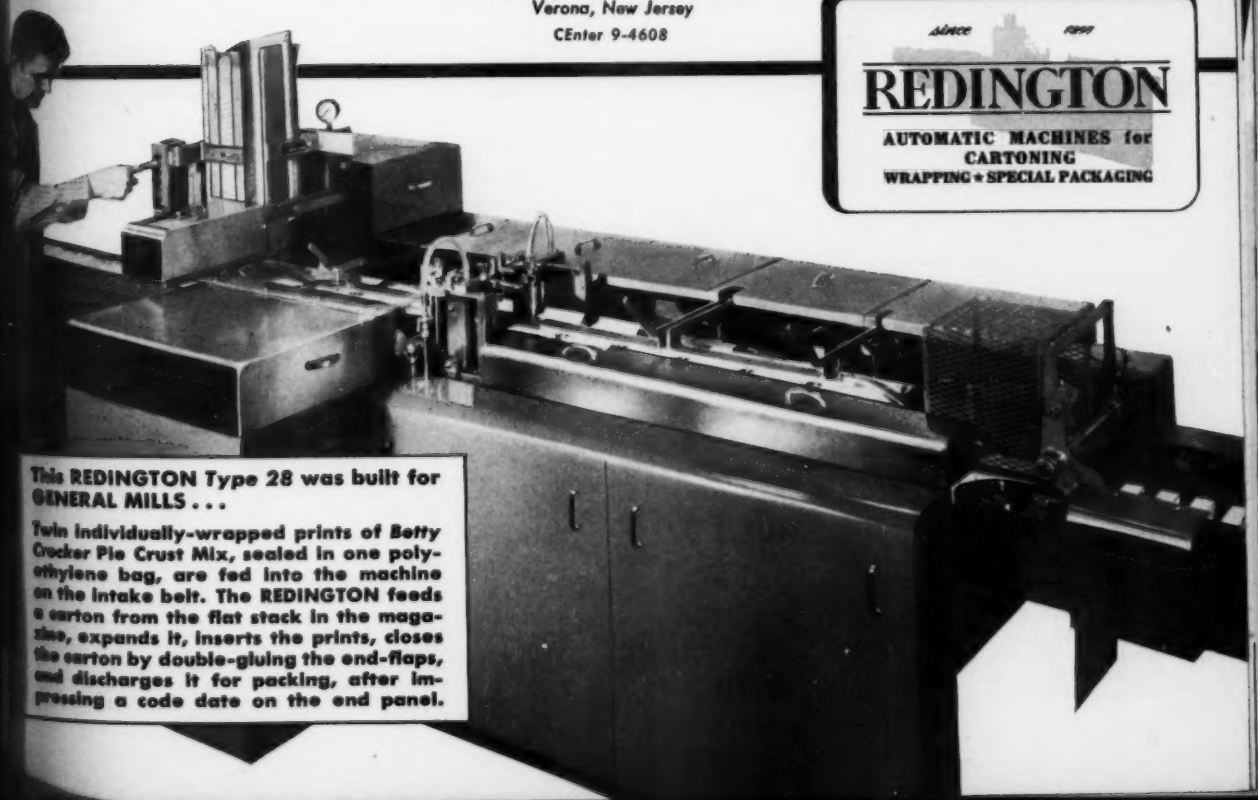

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MODERN PACKAGING

More price hikes inevitable

Forces at work appear to be bringing a new round of price increases in packaging.

The *Journal of Commerce* points up trends in raw materials, freight and labor costs that are likely to nudge up prices of glass, tin, paper and other materials over the next few months.

About the only exceptions are the prices of plastics resins, which competition has been forcing downward. But says *Modern Plastics*, "There is certainly no guarantee this trend can continue . . . while costs of nearly everything else have been going up."

Significant was the announcement that the Glass Container Mfrs. Institute and the Glass Bottle Blowers Assn. had signed new wage agreements calling for an increase in all base rates of 8% effective March 1.

Prices of all types of bottles were raised 5% last January 1. Prices of soft-drink bottles went up 5% April 1. GCMI says the increased wage scales may make further price rises on some bottles necessary.

Glass price boosts undoubtedly will make can manufacturers less resistant to the price rise in tinplate, which goes up 5% effective April 30 for the six months' period to October 1. And the can industry, of course, is watching closely the trend in steel prices which in all likelihood will go up again following steel workers' demands for pay raises this summer.

Kraft paper prices have already gone up by $5 to $10 a ton—the first increases in three years. These higher costs eventually will be reflected in higher paper container prices.

As much as everybody dislikes to face increased prices, a strong point must be made relative to packaging. These mild increases (probably averaging about 5%) are impelled by rising costs of base materials, labor and transportation. *Not by any shortage of supply.*

It would be an extremely serious mistake and only add fuel to the fire to create an artificial shortage if packagers should respond immoderately to appeals to lay in big forward stocks "before the price goes up."

There's nothing wrong with the current situation. Orderly price increases have come to be a regular part of our swift-moving economy. Rising prices could only be destructive if they went up too far and too fast—or if the earning power of the consumer failed to keep pace.

But since the current increases are the *result* of, not the *cause* of, a nationwide round of wage raises, they are on a sound, progressive economic basis.

The Editors

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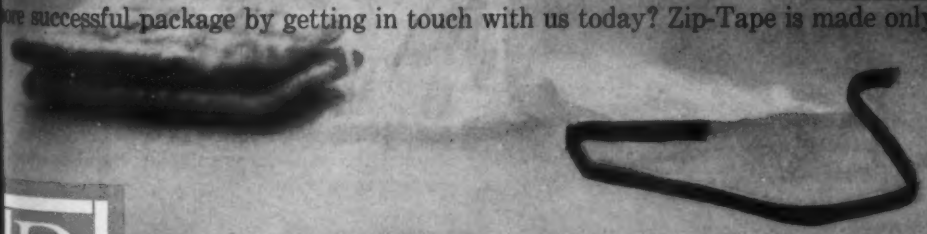

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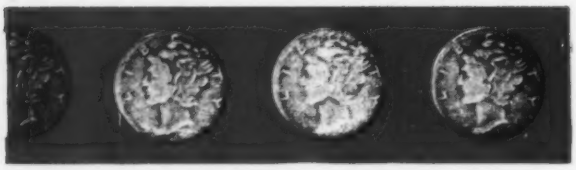

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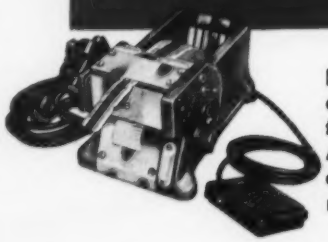

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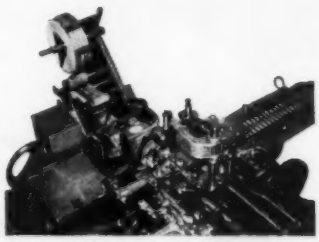

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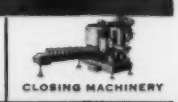
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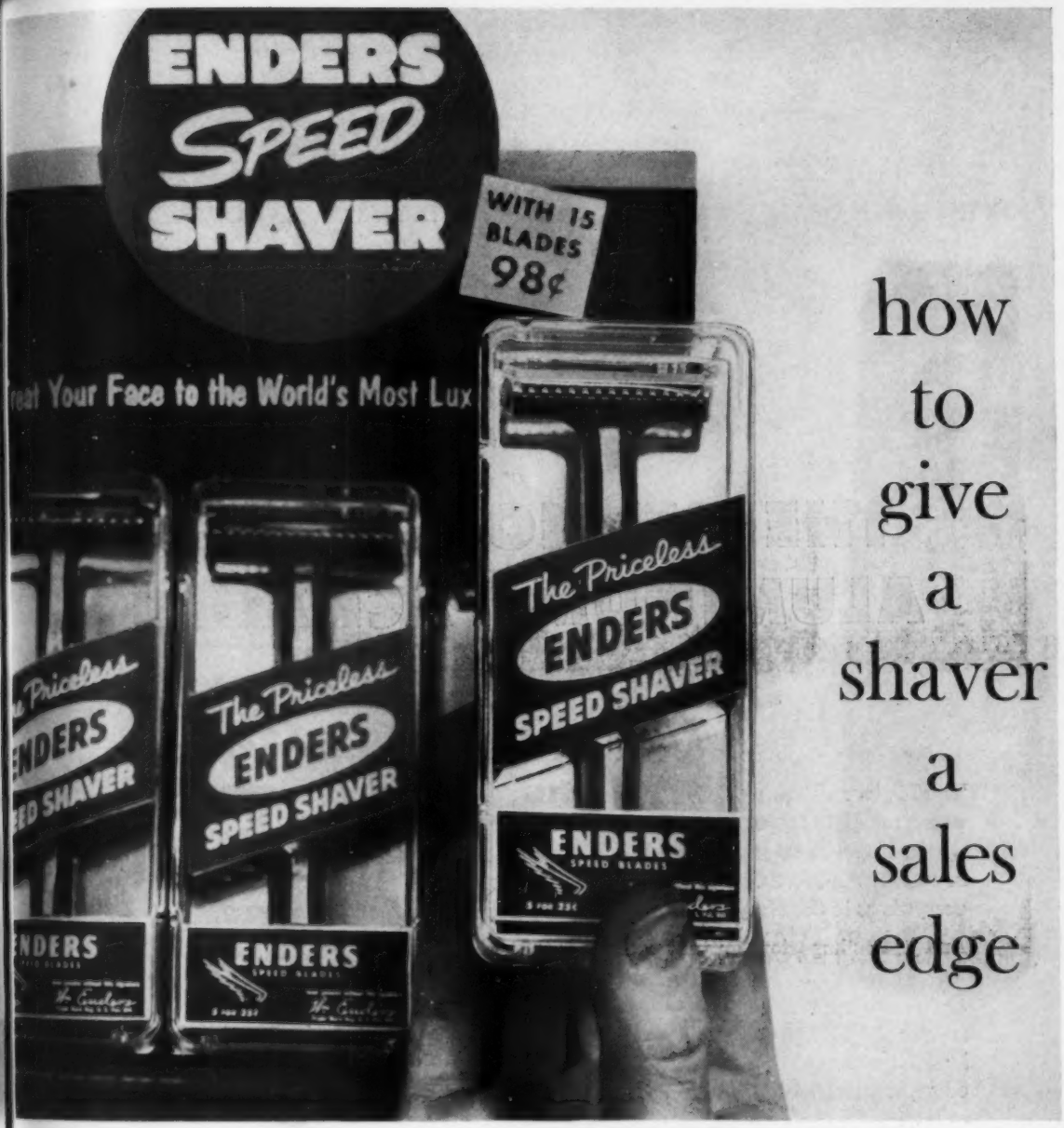
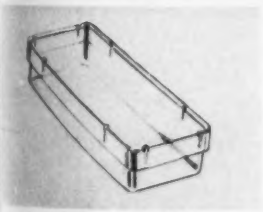


how to give a shaver a sales edge



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DEVILED CRABS
PRICE
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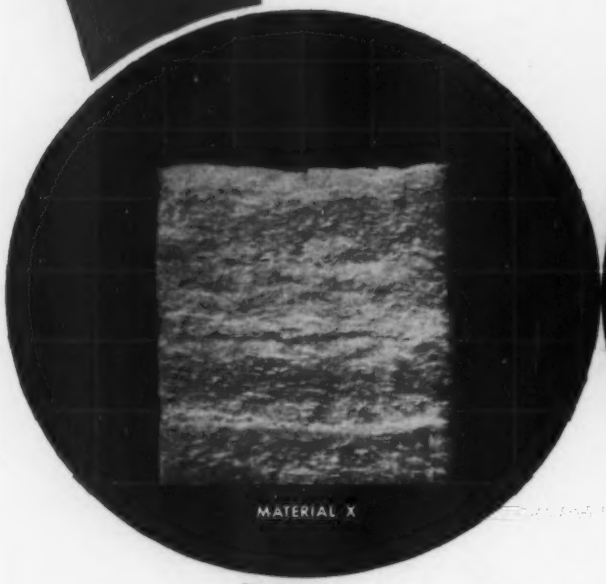
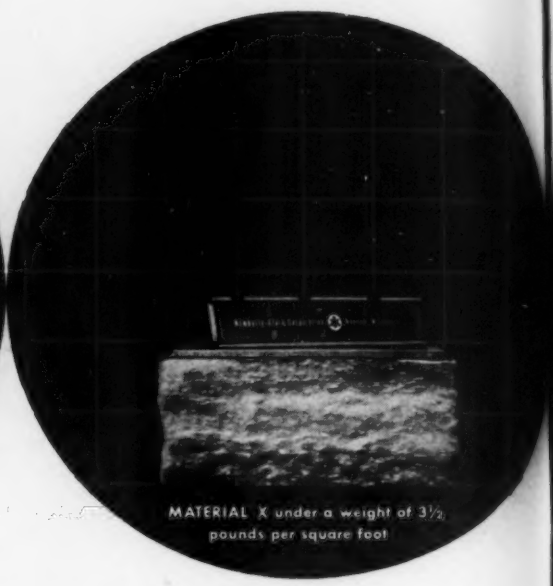
Which cushioning material will give y



MATERIAL X



MATERIAL X under a weight of 3½ pounds per square foot

Cushioning Material X, in the photograph on the left above, looks thick enough to protect practically any product against breakage. It's almost twice as thick as the first Kimpak sample on the right. But see how Material X compresses to less than half its original thickness under a Standard Weight. Kimpak under the same weight compresses very little.

The thickness of a cushioning material under a standard load is called "effective thickness"—or in other words, thickness in use. It's the single most important quality of any cushion.

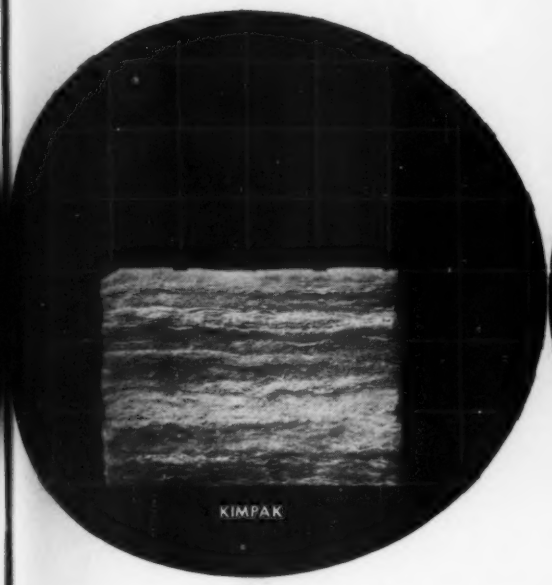
FREE—send for your Standard Weight today! Measures the thickness of cushioning materials under the standard load prescribed by Federal Specification

Here is a tool that will enable you to compare and choose the cushion that gives maximum protection for your money.

Precision made of sturdy aluminum, the Standard Weight is easy to use. Directions are printed on the face.

Kimberly-Clark offers this Standard Weight *free* to all packaging engineers and cushioning buyers. Just ask the Kimpak salesman who calls on you. Or write to Kimberly-Clark, Dept.M-4,Neenah, Wis.

...ill give your product better protection ?



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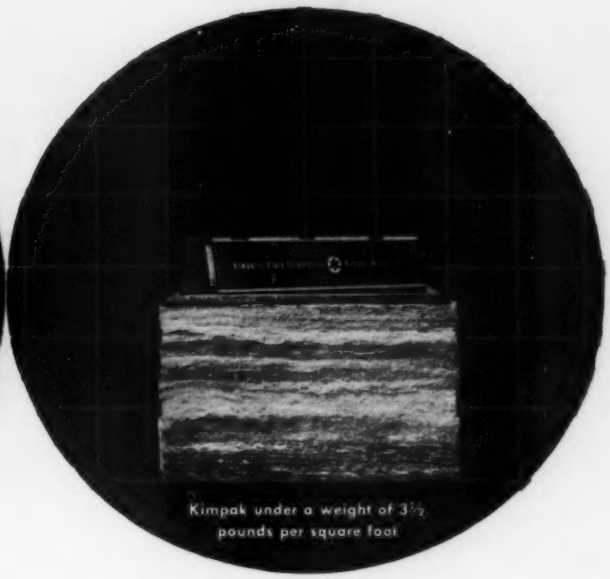

Kimpak under a weight of 3½ pounds per square foot

You can depend on the effective thickness of Kimpak to give you positive protection!

Compare the "*effective thickness*" of the cushion you're using now with Kimpak. You can do it easily, quickly with a Standard Weight designed to check thickness under the 3½ pound per square foot loading required by Federal Specification.

A Standard Weight eliminates any fluffy, non-working consistency of a cushioning material—gives you an accurate picture of the *working* cushion in your package.

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Call your Kimpak salesman. Ask him to show you the Kimpak line—today!

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Now Model B Transwrap Has

SEVEN NEW DESIGN FEATURES

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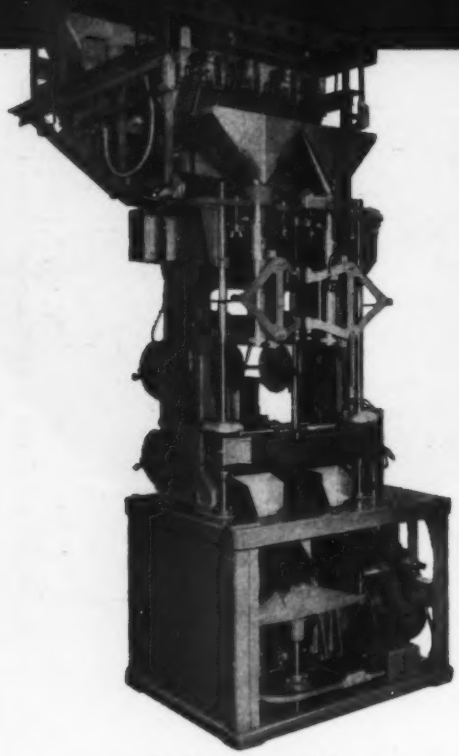

Model B Transwrap, showing net weight scale feeding.

Here's more news about Transwrap, the *completely automatic* packaging machine. Now you get 7 new design features in the Model B as the result of Package's continuing engineering research and development program.

- **Conjugate Cam Drive**—assures positive up and down drawbar strokes with a mechanism that cannot get out of adjustment.
- **Die Punch for Half Punch-Out**—provides an interrupted cut, makes partial hole without removing the tab.
- **Cam Switch Box**—with half-speed shaft to incorporate all switches in one box.
- **Dielectric Sealing**—with improved construction for sealing heads.
- **Feed and Scale Pans**—new design for more efficient feeding.
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Model B Transwrap will produce filled bags in sizes from ⅞" to 5⅛" wide and 2⅜" to 13" long, handles free-flowing solids, liquids, semi-liquids, granules and fine powders. You can find out about all these new Transwrap features by contacting our nearest office today.

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A TICKET TO TOBAGO

—or just a glance at your kitchen shelf

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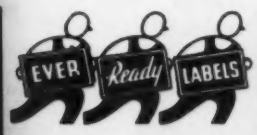
If you have a label problem, Ever Ready has leading designers and technicians to help you solve it. Call, write, or visit us today. We'll be happy to work with you.

WITHOUT OBLIGATION, we'd like to send you: ☐ The Story of 8 Important Red-E-Stik Pressure Sensitive Applications ☐ The Ever Ready Label Idea Kit ☐ Samples.



EVER READY LABEL
CORPORATION
117-20 EAST 30TH STREET, NEW YORK 18, NEW YORK
Other offices in Chicago and Belleville, N. J.

Announcing the first **completely modern** oblong can... the only **solderless** can with all these features!

NO-DRIP SPOUT
—another Canco "first." And the neck has an *outward* curl to eliminate raw inside edge.

CLINCHED NOZZLE
—this means no solder anywhere . . . no rust from flux splashes . . . a fully lithographed top.

CEMENTED SIDE SEAM
—pioneered by Canco, to replace solder. Permits full lithography all the way around the can.

FULL ENAMEL INSIDE
—100% enameling means 100% efficiency for hard-to-hold products.

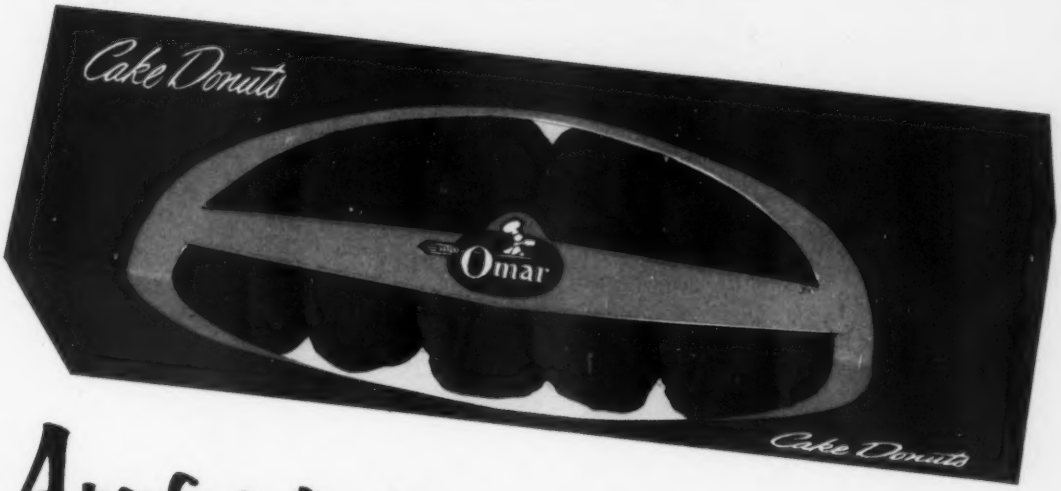
STACKABLE
—small recess in bottom of can permits full "stackability" . . . more effective displays . . . easier and better to ship and store.

There's not another container on the market with *all* the features you see above. And yet every one is important if you want to market your product in a truly *modern* container.

It's another example of Canco's continuing policy of passing along to you the end result of more than fifty years' experience.

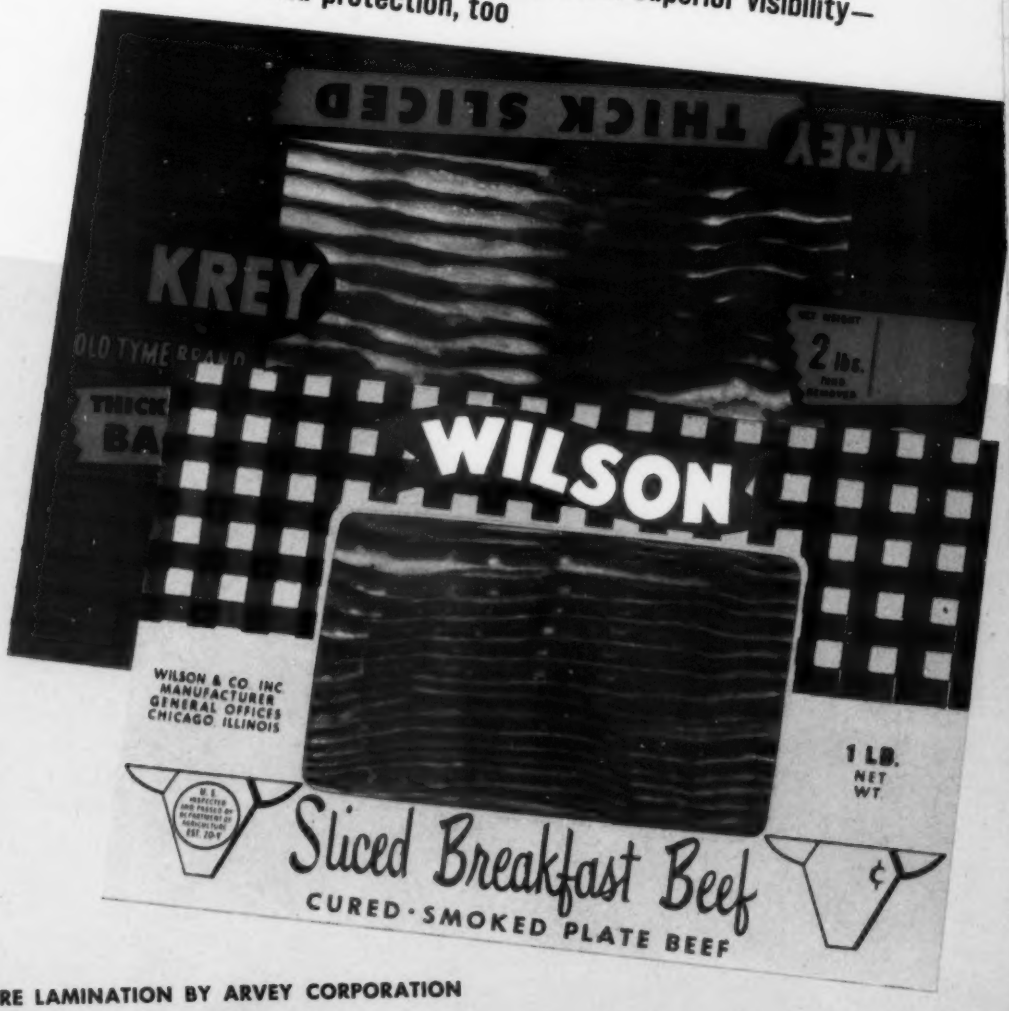
COME TO
CANCO
FIRST!

AMERICAN CAN COMPANY New York, Chicago, San Francisco



A perfect display window for your product

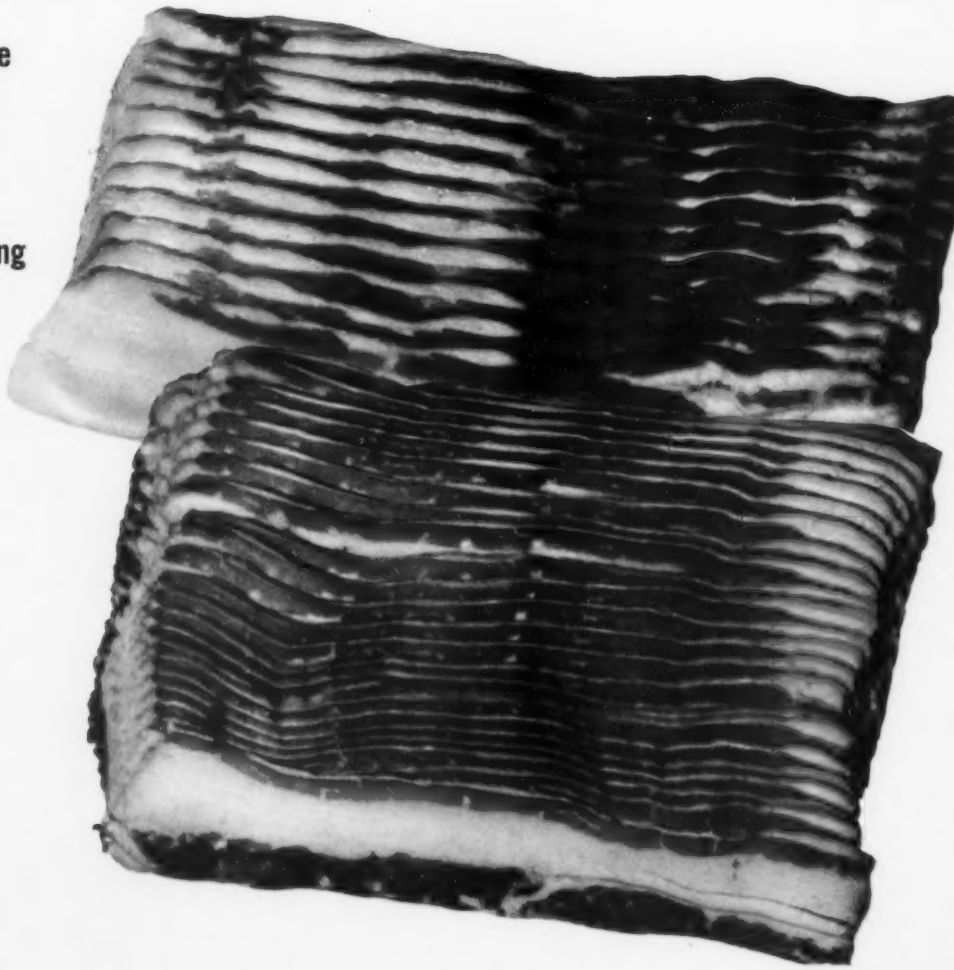
See for yourself how PLIOFILM windows provide superior visibility—and protection, too



APERTURE LAMINATION BY ARVEY CORPORATION

bacon · baked goods · and breakf

Just three of the
wide variety of
products
that benefit
by PLIOFILM
window packaging

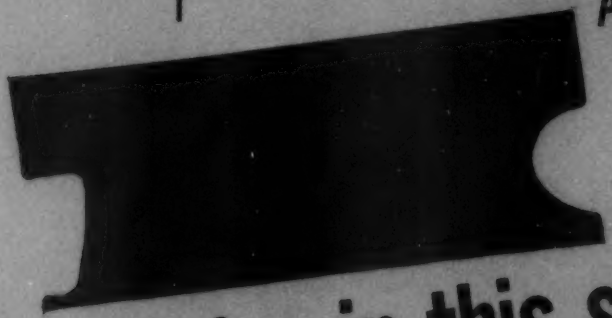


eakfast beef

PLIOFILM is dimensionally stable
Look, no wrinkles!

PLIOFILM is moisture-resistant
Doesn't split or run

PLIOFILM is grease-resistant
Positive, lasting heat seals



No holes in this story

Could your product use a better window dressing?

Thanks to the strength, dimensional stability and grease-resistance of PLIOFILM—as well as its natural transparency—more and more products can now enjoy the sales-making benefits of window packaging.

Maybe your product belongs on the list. You can find out—with no obligation, of course—by talking it over with the Goodyear Packaging Engineer. Write him at Goodyear, Packaging Films Dept. P-6418, Akron 16, Ohio.

GOOD THINGS ARE BETTER IN **Pliofilm**

Pliofilm, a rubber hydrochloride—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

GOODYEAR

PACKAGING FILM

John Dale OF ENGLAND

for quality containers

Collapsible tubes, metal containers, closures to your exact specification—and made with p-r-e-c-i-s-i-o-n

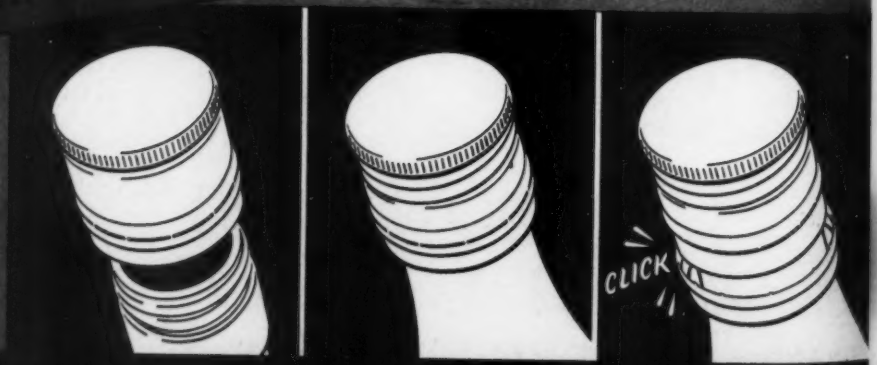
JOHN DALE
LIMITED

JOHN DALE LIMITED, BRUNSWICK PARK ROAD, NEW SOUTHGATE, LONDON, N.11, ENGLAND. TEL: ENTERPRISE 1272

SEALED UNTIL SOLD

R.O. seal

When liquid goes into a bottle which is capped by an R.O. Pilferproof Seal it is safe until it is sold. In transit or in store, tampering is discouraged. The moment the Pilferproof Seal is broken a 'tell-tale' ring drops down the neck of the bottle. Because of this security, as well as its attractive appearance and its made-to-measure fit, the R.O. is the perfect seal for bottles and jars.



METAL CLOSURES LTD · WEST BROMWICH · STAFFS

ENGLAND

An Amazing New Money-Maker for Any Plant Packaging 3000 or More Bags Per Day!

THE TRIANGLE AUTOMATIC

BAG MAKER-GIRT FILLER

First and only machine of its type practical and profitable for small plants as well as large ones

MAKES THE BAG! FILLS THE BAG! SEALS THE BAG!

Amazingly Low Priced!—Priced at about one-half that of any machine for the same purpose . . . an investment so attractive that if you are packaging *as few as 3000 bags per day,* it will pay for itself in *less than one year!*

Fast!—*output is determined by number and speed of the weighing scales — not by the number of bag making tubes* . . . fills and seals 30 to 50 perfect bags per minute—every minute.

Fantastically Simple!—Never before was there a bag making, filling and sealing machine so utterly simple . . . with so few parts . . . without difficult adjustments . . . without complicated mechanisms. Any of your operators can run it.

Flexible, Versatile! — Handles diverse range of products in all size bags up to 6″ face by 12″ long. Quick, easy changeover.

A Tremendous Money-Maker! — Get full facts and figures today. Return the coupon for new literature. There is no obligation.

TRIANGLE *Since 1923:*
Weighers, Fillers, Powder Packers, Carton Sealers, Wrapping Machines, Bag Makers

TRIANGLE PACKAGE MACHINERY COMPANY
6634 West Diversey Avenue, Chicago 35, Illinois

Triangle Package Machinery Company
6634 W. Diversey Ave.
Chicago 35, Illinois

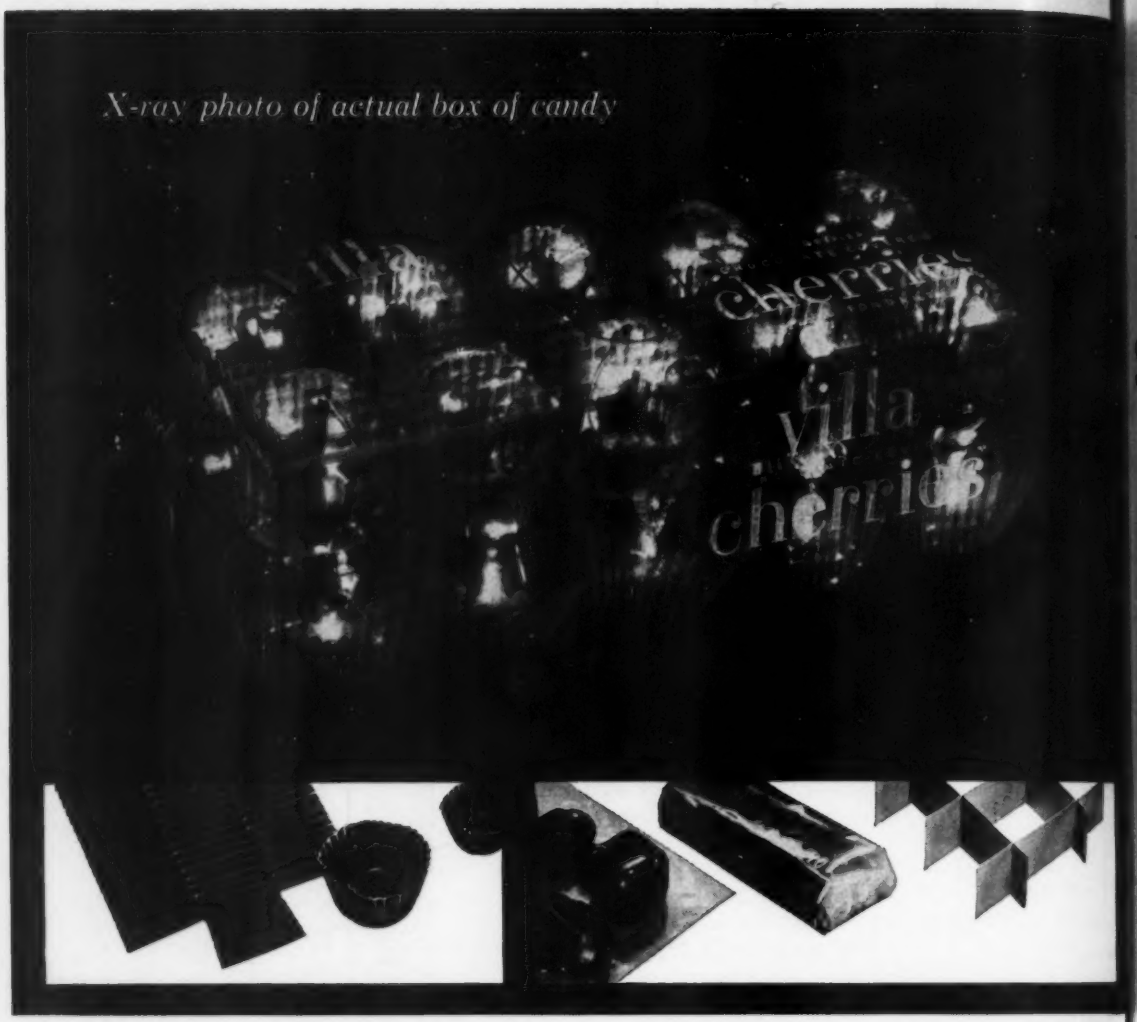
Please send bulletin on the new bag maker-filler:

Company_____

Street_____

City_____ Zone____ State____

Your name and position_____



GLASSINE PAPER

The inside story on Protective Candy Packaging

Chocolate presents a tricky inside packaging problem. It has a high fat content which will stain and seep through ordinary papers. This will not occur, however, when layer pads, cups, and dividers are made of glassine. The inherent density of this Rhinelander paper is the reason.

Many candy bar wraps are made of Rhinelander glassine. Its glossy, rich appearance and smooth surface provide for excellent printing. Handles easily and economically on automatic packaging equipment. For added eye appeal, glassine is available in a wide variety of colors and in embossed, opaque, and translucent grades. Versatile glassine paper can fit your specific protective packaging requirement economically. Write for samples, stating application.

RHINELANDER PAPER

Rhinelander Paper Company, Rhinelander, Wisconsin

Packages look better...

Sell faster with...

colorstitch

Here are the colors:

Compare them with the color of your container—select those that will best coordinate with your container and its advertising message—for that extra sales plus.

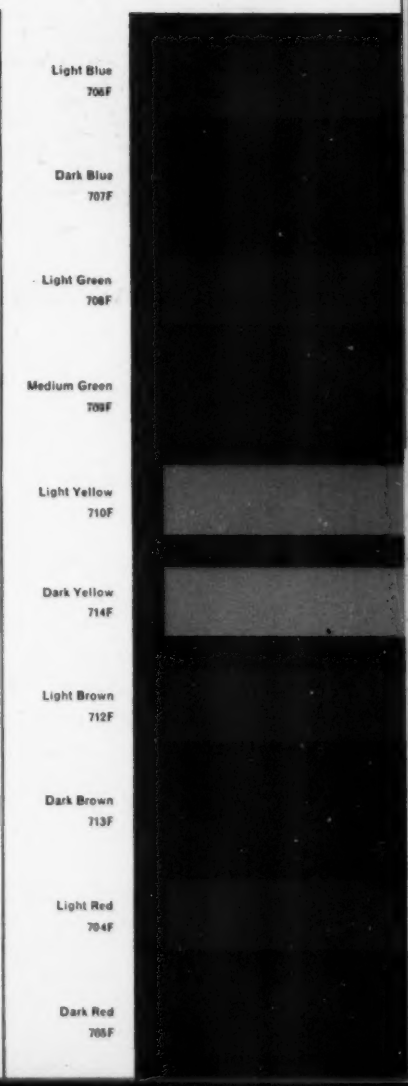
Acme Steel colored stitching wire harmonizes with package colors . . . has tough vinyl-paint finish that resists chipping and peeling.

Now with Acme Steel's Colorstitch Stitching Wire, your packages can be colorfully correct right down to the smallest detail. For Colorstitch blends or contrasts with the colors of your fibre display and shipping boxes. And that's important in increasing the attention-arresting appearance as well as the selling impact of your package.

Modern design makes your package a powerful advertising force. It attracts favorable interest both for your product and for your company. And modern design depends on effective use of color.

You can use Colorstitch with Acme Steel's new Arcuate stitching method or as standard flat stitching wire. Colors resist chipping or peeling—for the vinyl paint finish is tightly bonded to the wire. Colorstitch is galvanized on both sides before painting—so both sides of the wire are protected against rust.

Colorstitch holds securely on lacquered, printed or waxed surfaces. And stitches aren't weakened by excessive heat or moisture. They hold securely under these conditions. Made in size .103" x .020" in ten-pound coils. Other sizes available on special order.



Black and White also available.

ACME STEEL PRODUCTS DIVISION

ACME STEEL COMPANY

2840 Archer Avenue, Chicago 8, Illinois

ACME STEEL

FINISHED PLASTIC PACKAGES from a SINGLE MACHINE...

Lester AUTOMATIC Injection Molding Machines

Lester AUTOMATIC Injection Molding Machines are in fact miniature factories for producing finished plastic packages at a single station. They are self-contained units, equipped to run as individual machines, or in batteries attended by one operator.

Once the mold is installed, the proper temperatures established and the timers set for automatic repetition of the cycle—*you can almost forget them!* A variety of automatic controls and safety devices are available to assure you low-cost, round-the-clock continuous production.

If you want assistance in planning your molded plastic packaging production—we'll be happy to work with you—from consultation on the mold to getting your installation running. Give us a call.

LESTER INJECTION MOLDING MACHINES

REPRESENTATIVES

New York . . . . Steven F. Krould
Detroit . . . . . M. R. Tenenbaum
Chicago . . . . . J. J. Schmidt
Cleveland . . . . . Don Williams
Coral Gables . Morton Machinery Sales
Cincinnati . . . Index Machinery Corp.
Los Angeles . . . . Machinery Sales Co.
St. Louis, Milwaukee . . . . A. B. Geers
Providence . . . . Sydney W. Lohman

FOREIGN

Toronto, Canada A. R. Williams Mach. Co., Ltd.
Sydney, Australia . . . Scott & Holladay, Ltd.
Japan . . . . Okura & Co., New York, Inc.
Stockholm, Sweden . . Aktiebolaget Servo
Basle, Switzerland . . . . . Hermann Wahl

distributed by LESTER-PHOENIX, INC., 2712-W CHURCH AVENUE • CLEVELAND 13, OHIO

the plus of
Ekco-Alcoa
Containers

manufacturing skill

The presentation of your product depends on your container, and the quality of your container depends on the maintenance of rigid manufacturing standards. At Ekco-Alcoa Containers Inc., even the plant air is filtered to assure perfect sanitation throughout the manufacturing process . . . your finished containers are packed in specially designed cartons to insure the greatest protection. That's why you see no flaking, no spotting . . . that's why packages manufactured by Ekco-Alcoa Containers have such a high degree of uniformity and quality. People recognize these facts. As a result, we manufacture more containers, in greater variety, than any other producer. And we have the world's largest, most modern plant exclusively for rigid aluminum foil container production, to assure you quality containers in any quantity.

The Plus Container

trademark

EKCO-ALCOA CONTAINERS *Inc.*

1900 North River Road • River Grove, Illinois

EKCO is the registered trademark of Ekco Products Company, ALCOA is the registered trademark of Aluminum Company of America. The corporate name and combination mark, EKCO-ALCOA, is used under license to the manufacturer by each of these companies.

HOW LEADING FIRMS SAVE and SELL WITH PHOENIX SELF STICK® BANDS

No Stapling!...
No Moistening!...
No Taping!...
SEAL AT FINGER'S TOUCH!
Processed with a cohesive that sticks only to itself — never to any other surface or substance.

"Brand™ Band" Your Merchandise to INCREASE SALES!...

- For greater counter and shelf appeal.
- To announce special sales and other events.
- For modern, colorful packaging at economical cost.
- For effective product identification at point of sale.

All of these strong merchandising benefits — plus speedier, more economical packaging — will go to work for you when you adopt Phoenix "SELF-STICK" Bands.

SELF STICK® PACKAGING
Division of
PHOENIX PRODUCTS CO.
4705 N. 27th STREET • MILWAUKEE 9, WISCONSIN

Send, on your firm letterhead, for sample selection of "SELF-STICK" Bands and complete information. Include one of your present labels. Or Phone (CUster 3-1680).

Background for packaging

Notes, quotes and comments

Revolutionary new air-suspension systems for freight vehicles themselves may greatly lessen the need for package cushioning. The new system literally suspends the vehicle on compressed air in rubber bellows which replace springs. In a recent test, General Motors loaded an air-suspension truck trailer with fragile items such as Christmas-tree ornaments packed in cheap, light-weight cartons especially designed to collapse under rough treatment. In a 1,750-mile trip from Pontiac, Mich., to Miami, Fla., not one item in the cargo was broken. GMC Truck & Coach Div. figures it alone could save $200,000 a year if all of its shipments of replacement parts were packaged in such light-weight cartons.

Maximum visibility is considered by 85% of food-chain executives polled by The Dobeckmun Co. to be the most important element in effective produce package design. Nearly all (98%) felt that today's packages have too much ink coverage; 88% wanted the design on the face or front of the package only.

Note the effect on sales when an industry made up of small individual producers gets together for joint promotion of a common product: One year after starting an organized merchandising and publicity campaign (through Carl Byoir & Associates), the Collapsible Tube Mfrs. Council finds the industry breaking production records month after month. Successive new monthly sales records for collapsible tubes were set in November, December and January, and 1955 as a whole was the industry's first billion-tube year.

Foil packaging gets enormous impetus from trademark programs that connect popular household foil wrap with commercial packages. A 44-city survey discloses that the "Reynolds Wrap" seal, extended from the household wrap to customers' packages only two years ago, is readily identified by 72.5% of women shoppers—second only to the *Good Housekeeping* seal in recognition value. Meanwhile, in launching its own new "Alcoa Wrap" emblem, Alcoa reports that 80% of housewives associate premium products with aluminum foil packaging.

Take a tip from the beer industry's experience if you produce any frequency-use product in cans. An American Can Co. survey shows that three out of five families who buy beer now buy it in six-can cartons—the number having more than doubled in the last five years. Makers of cleansers and dog foods who have tried similar packaging find astonishing sales increases. First reports on the new two-can carton for Glim detergent (see *"Cartoned Two-Can Deal,"* MP, March '56, p. 182) show a 97.5% sales rise in the Eastern regional market.

Folding-box trends designwise are revealed in display at San Francisco of this year's 100 winners in Folding Paper Box Assn.'s annual competition. Observers remark upon a distinct trend toward multicolor packages and a definite upgrading of quality and durability in both printing and construction. Extension of multiple cartoning principle into many new fields is evidenced by winning carry-packs containing cat food, cake mixes, soap and motor oil.

Why anti-pilferage package design is important to any product to be sold in a supermarket: In 10 counties of Southern California alone during 1954 there were no less than 858,369 cases of pilferage from supermar-

kets, an average of 6,000 per store, with a dollar loss of well over $20 million. Only 17,000 of the shoplifters were apprehended.

Value of a package change as an advertising and promotion subject is illustrated by Philip Morris' winning "best ad of the year" recognition from *Tide's* Leadership Panel for its striking "Pardon Us While We Change Our Dress" campaign accompanying change-over of Philip Morris cigarette package to new red-and-white design. The same company's Marlboro campaign, introducing the new flip-top box, was ranked fifth among the nation's top 10 ads of 1955.

Serious problems in packaging will be created for the beer and liquor industries if the Siler-Langer Bill passes Congress. The bill would bar from interstate commerce *all* forms of alcoholic beverage advertising. Not only would this stop the practice of enclosing display material in beer and liquor cases, but the cases themselves (and the multiple carrier cartons used for beer) might be barred from carrying any printed message, if the bill were strictly interpreted.

Background for packaging

Canners fight to hold their share of food market against inroads of frozen and other convenience foods. On the basis of an independent market study just completed, National Canners Assn. will remind grocers that canned foods have the lowest retail handling costs of any product category, have an average 16% gross profit margin, which is better than that of half the grocery products in the store, and account for as much as one-fifth of retailers' total net profit dollars.

Alarmed at the effect of proposed freight-rate increases on their already disadvantageous shipping situation, West Coast packagers are urging that weight-saving developments be given major emphasis at the Western Packaging Show in Los Angeles, July 10-12. According to *T. A. Schwarz* of Sunsweet organization, the prospective new freight rates will add more than 7% to cost of putting Western products in their normal markets.

Warning of the need for a bigger investment in research is given to paper industry by one of its outstanding research leaders. *Allen Abrams* of Marathon Corp. told American Paper & Pulp Assn. that less than 7/10 of 1% of the industry's sales dollar goes to research, far below national average. Meanwhile, with production still running close to 100% of capacity, the industry plans $1.3-billion expansion in the next two years. *Note*: Kraft Paper Assn. tackles research and development on an industry-wide basis, hiring *Edwin T. Gibson*, former executive v.p. of General Foods, to head up program.

Calling progress in frozen basic meats the most important current trend in the entire food industry, *Food Field Reporter* predicts that rapidly increasing volume will overcome some retailers' objections that packer-packaged frozen steaks and roasts, such as the line recently introduced by Swift, are too high priced. Armour has just announced a cartoned frozen line to compete with Swift's. Retailers admit these meats are selling well despite price.

Keep an eye on improved polyethylene squeeze tubes and squeeze cans. Major food company's imminent adoption of polyethylene tube for a cheese spread may finally break resistance in the food field. Other products to adopt lined polyethylene tubes include shave creams and suntan lotions. Makers of car wash and white-wall cleaner compounds eye squeeze can.

BALI BOX
molded of
Catalin Styrene

Packaging's Spectacular New Center of Attraction

Exotic as a product container, artistic as a reuse facility, appealingly inexpensive . . . Bali Box is Dan Fox's* newest inspiration . . . and most deserving of applause.

Designed to enwrap luxury items like special candies, cigarettes, cosmetics and jewelry, this package will live to thrill and serve its proud possessor long after the original contents will have been enjoyed or removed. The inserts to the left indicate its continuing treasure-chest potentials.

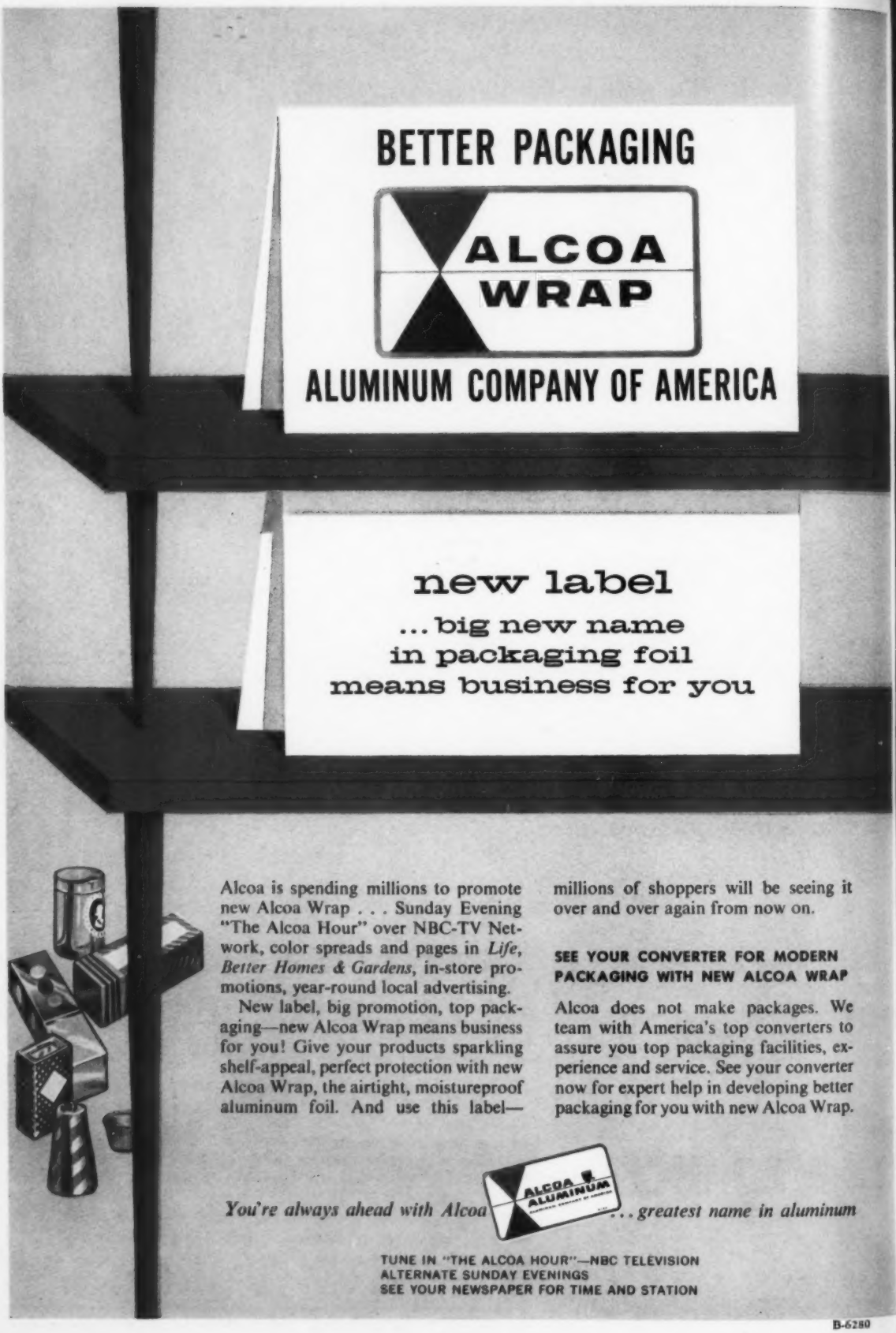
Molded entirely of CATALIN STYRENE in rich cinnabar red, and ivory, Bali Box is truly a precious objet d'art. Its pronounced lotus leaf clusters and centered dragon shield motif are spiritedly Balinese and authentic as the dancing figurettes that grace the stage.

The tray itself thoughtfully provides adjustable dividers and a felted base-pad. Hand carving, were it to have been directed by Oriental skill and patience, could hardly have bettered the fineness of detail which Bali Box so exquisitely achieves . . . it is a tribute to the gem of plastics and to those responsible for its design and manufacture.

**Product of Dan Fox, Inc., an affiliate of Alden Plastic Corp., New York 1, N. Y.*

Catalin **CATALIN CORPORATION OF AMERICA**
ONE PARK AVENUE, NEW YORK, N. Y.

...in Styrene and Polyethylene Molding and Extrusion Compounds, Catalin chemical products include a wide range of Urea, Phenolic, Cresylic, Resorcinol, Melamine and Styrene Resin formulations



Alcoa is spending millions to promote new Alcoa Wrap . . . Sunday Evening "The Alcoa Hour" over NBC-TV Network, color spreads and pages in *Life*, *Better Homes & Gardens*, in-store promotions, year-round local advertising.

New label, big promotion, top packaging—new Alcoa Wrap means business for you! Give your products sparkling shelf-appeal, perfect protection with new Alcoa Wrap, the airtight, moistureproof aluminum foil. And use this label—millions of shoppers will be seeing it over and over again from now on.

SEE YOUR CONVERTER FOR MODERN PACKAGING WITH NEW ALCOA WRAP

Alcoa does not make packages. We team with America's top converters to assure you top packaging facilities, experience and service. See your converter now for expert help in developing better packaging for you with new Alcoa Wrap.

You're always ahead with Alcoa ALCOA ALUMINUM *. . . greatest name in aluminum*

TUNE IN "THE ALCOA HOUR"—NBC TELEVISION
ALTERNATE SUNDAY EVENINGS
SEE YOUR NEWSPAPER FOR TIME AND STATION

B-6280

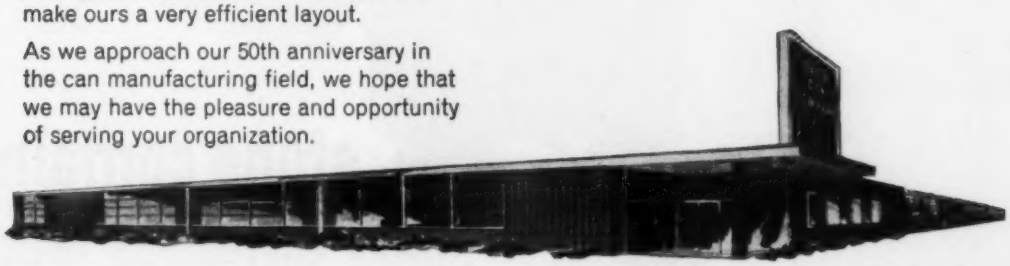
No... we're not being evicted

But, because of your increased orders, we ARE forced to move.

Because of its continued growth, the OLIVE CAN COMPANY will move its plant and general offices to 4700 North Oketo, Chicago on or about June 1st, 1956, where we will occupy a new building, built expressly for the manufacturing of the finest of lithographed and plain containers.

Careful consideration was given to the selection of our new location. The fine planning which has gone into plant arrangement and interior treatment will make ours a very efficient layout.

As we approach our 50th anniversary in the can manufacturing field, we hope that we may have the pleasure and opportunity of serving your organization.



44 YEARS OF QUALITY AND SERVICE

OLIVE CAN COMPANY

DESIGNERS AND MANUFACTURERS PLAIN AND LITHOGRAPHED **METAL CONTAINERS** CUSTOM OR STOCK DESIGNS

450 N. LEAVITT STREET • CHICAGO 12, ILL.

the *Creative Approach* for containers that sell products

stone container
CORPORATION

4200 W. 42nd PLACE • CHICAGO 32, ILLINOIS

SALES OFFICES AND PLANTS
IN MOST PRINCIPAL CITIES

SUBSIDIARIES

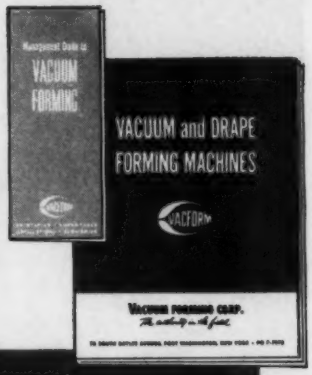
W. C. RITCHIE AND COMPANY, CHICAGO, ILL.
WESTERN PAPER BOX CO., DETROIT, MICH.

Complete Packaging Service

Send for new reports:

VACUUM FORMING

...what it IS ... what it DOES ... what it SAVES
...its ADVANTAGES over other plastics and metal forming processes
...its APPLICATIONS in your business



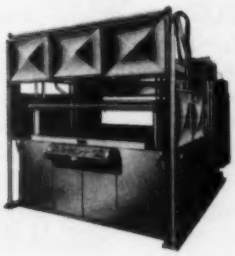
COMPARED WITH CONVENTIONAL MOLDING METHODS

"VACFORM" SAVES 92% ON MACHINE INVESTMENT 364% ON TOOLING COSTS

Vacuum Forming is a new plastics manufacturing development of major importance to the packaging industry. Many important packaging users have found it a far more economical and versatile process than any conventional molding operation.

These authoritative guides are important to you not only for future planning, but also because they may suggest immediate practical applications of this new packaging method to your own products. Write for your copies today.

A full-scale vacuum forming machine for less than $1,000. Especially recommended for low-cost pilot runs, experimentation, product development.



One of the newest VacForm units (Model 50-30) featuring water cooling and other advanced technical features. Sheets to 52" x 30", draws as deep as 15".

HOW VACUUM FORMING IS NOW BEING USED

PACKAGING – re-usable and disposable visibility packages; contour containers; "skin" and "blister" protective and pilfer-proof packages; portioned and single-serving containers; transparent "window" panels; ornamental gift packages and baskets; skintight wraps for hard-to-package items.

ADVERTISING—self-service and self-dispensing displays; carded merchandisers and other point-of-purchase displays; realistic three-dimensional signs, plaques, and posters; seasonal display pieces and platforms; manikins and product facsimile; premiums.

INDUSTRIAL APPLICATIONS – light structural components; light diffusion panels, shades, lenses, and reflectors; machine housings and guards; relief maps; tote boxes; automobile scuff boards and instrument panels; sectional, photographic, and laboratory trays.

CONSUMER PRODUCTS – toys, novelties, dolls; flexible products; luggage, handbags, and cases; trays, place mats, lampshades, household sundries.

COMPONENT PARTS – In the appliance industry alone, these include: refrigerator door liners, drip pans, and crisper trays; radio cabinets; TV masks; instrument panels and housings.

VACFORM

VACUUM FORMING CORP.

The authority in the field

76 SOUTH BAYLES AVENUE, PORT WASHINGTON, N. Y. • PO 7-7272

VACUUM FORMING CORPORATION
76 South Bayles Avenue, Port Washington, N. Y.

Send us new reports on Vacuum Forming.

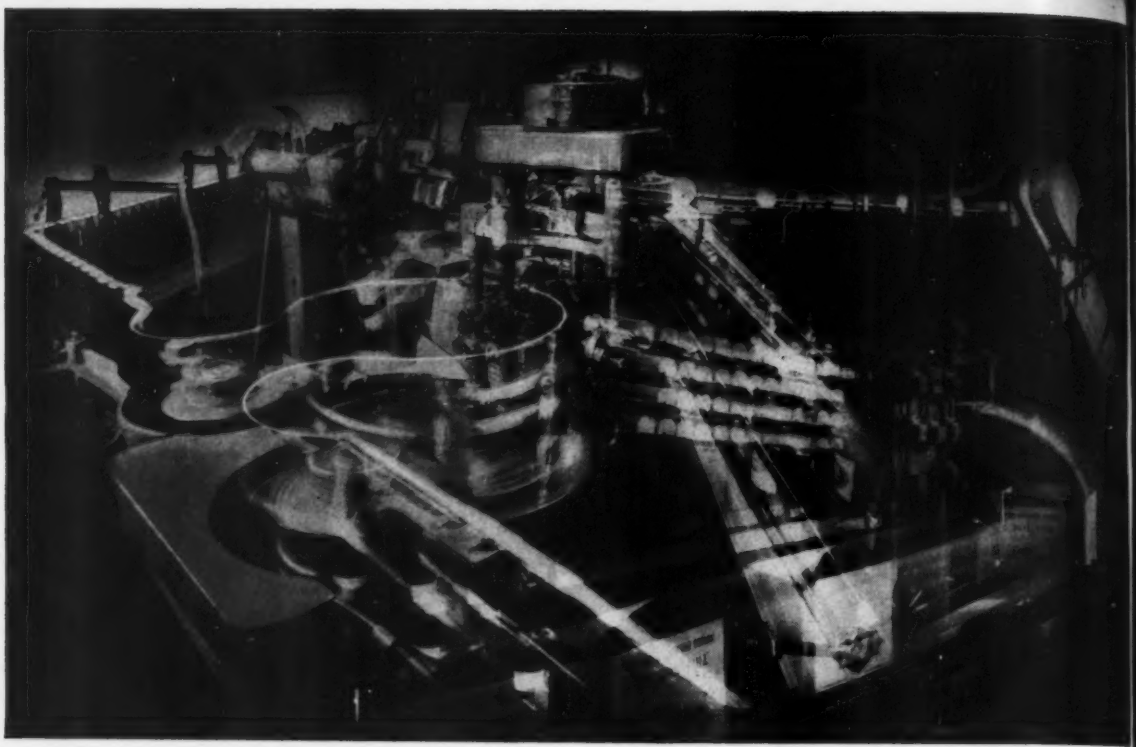
Name..... *Title*.....

Company.....

Street.....

City..... *Zone*.... *State*.....

Principal business.....



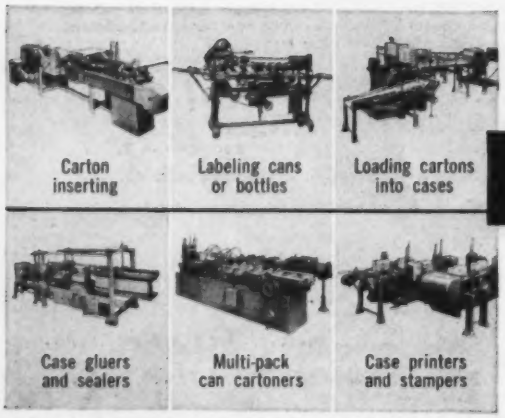
Most dependable motions in packaging

ABOVE: *Motion study of a Standard-Knapp 830 Bottle Packer and a Standard-Knapp Can Packer in operation. Fast, constant-flow packaging such as this is available from S-K for practically any type package or product.*

Model 830 Packers are available in models with 2-, 3-, 4-, 5- or 6-lanes and in a duplex type with 12-lanes. They receive bottles, cans or jars in a standing position, divide them into the required number of lanes, form the load pattern and then guide them into cases.

Standard-Knapp Can Packers perform the same functions, but handle the cans in a rolling position. These machines are available in a wide range of models to meet the most varied requirements.

Each motion of a Standard-Knapp Case Packer is meticulously engineered. Then it is delivered by mechanisms that combine highest quality metals, precision machining and assembly — and the priceless factor of long experience. For more information about our Case Packers and other packaging equipment, write Dept. G for our catalogs.

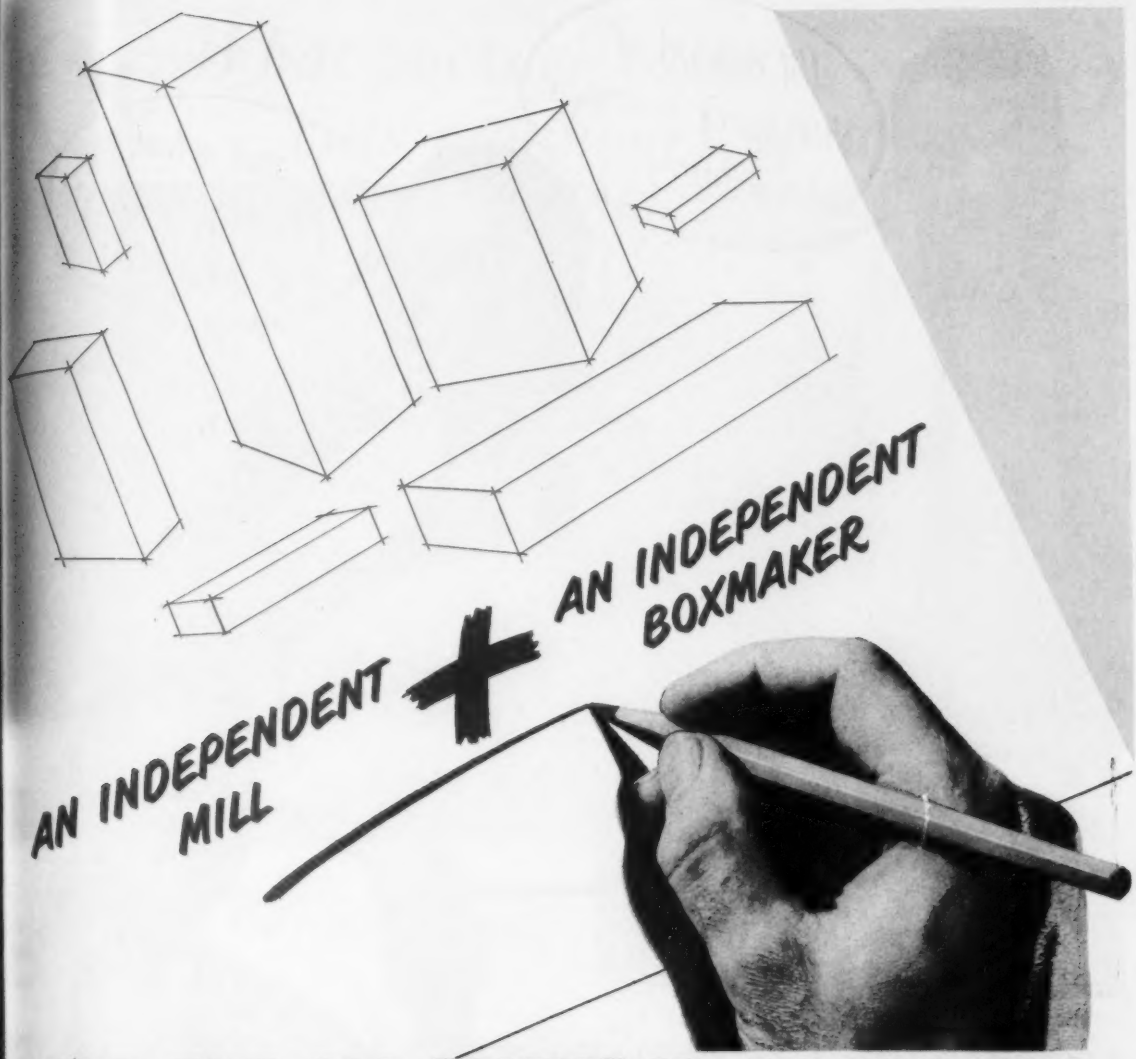


STANDARD-KNAPP

DIVISION OF EMHART MFG. CO.

PORTLAND, CONNECTICUT

Latin American Representatives: American Steel Export Co., New York, N. Y.



FOR THE BIG "PLUS" IN PACKAGING

FOR FIFTY YEARS 1906 1956

Ridgelo
CLAY COATED
REG. U.S. PAT. OFF.
BOXBOARDS

Write for Free Samples

#90 ULTRAGLOSS
(glazed)
•
#75 BRUSH FINISH
•
CUSTOM COATED
•
STANDARD COATED
(machine)
•
METALLIC COATED
•
POLYETHYLENE COATED

It's just as sure as two plus two! You'll get the quickest and best solution to any packaging problem from an independent boxmaker, working with an independent boxboard mill. And a lot of important advantages, too. Such as: A location that spells convenience and economy for you; choice of reproduction processes and equipment best suited to your needs; and no restrictions as to grade and quality of boxboard that price, finish, or color may dictate. When you want a new carton, or an improved version of an old one, call in an independent boxmaker. He may or may not recommend the use of a Ridgelo boxboard, but you'll get an outstanding job if he does.

LOWE PAPER COMPANY • Ridgefield, N. J.
An Independent Mill—Serving Industry Since 1906

Representatives: Detroit—Joseph P. Giroux • Los Angeles—Norman A. Buist • Philadelphia—Philip Rudolph & Son, Inc. • St. Louis—A. E. Kellogg

I'll get rid of this upset stomach in a hurry---
---and what a pleasant way to do it---
---yes, sir---it's BRIOSCHI* for me when I've had too much to eat or drink---
BRIOSCHI
BRIOSCHI

BRIOSCHI® effervescent preparation is sealed with Crown Lug Caps, the closures that provide smooth application on the production line . . . dependable protection . . . simple removal with an easy quarter-turn . . . an excellent re-seal. The liners in these caps are specially selected for the individual product.

If you would like to be *sure* the closure and liner you use are *scientifically right* for your products, get in touch with your Crown Representative. Crown Cork & Seal Company, Inc., *Crown and Closure Division,* Baltimore 3, Md.

CROWN CLOSURES
Approved by millions of housewives

* *BRIOSHI, "The Pleasant Anti-Acid" is made to the formula of A. Brioschi and Company, Milan, Italy and is distributed by Ceribelli & Co., Fair Lawn, N. J. It is doubly protected with Crown Lug Caps and a cellulose outer covering.*

Q: *What package caser cuts manhours up to* 70%?

"Sure-Way" Caser at Western Frozen Foods, Watsonville, Calif.

A: *The amazing* SURE-WAY PACKAGE CASER

TYPICAL USERS

American Home Foods, Inc. — Spaghetti dinner
The Andrew Jergens Company — Soap bars
C&H Sugar Refining Corporation — Sugar
General Mills, Inc. — Prepared mixes
Libby McNeill & Libby — Frozen foods
Mariani Frozen Foods — Frozen strawberries
M. J. B. Co. — Rice and tea
Rosenberg Bros. & Co., Inc. — Prunes
Sun Maid Raisin Growers of California — Raisins
West Coast Growers & Packers, Inc. — Raisins
Patterson Frozen Foods — Frozen foods
Cedergreen Frozen Pack Corp. — Frozen foods
Western Frozen Foods — Frozen foods

...and here's why *"When we installed our 'Sure-Way' Caser a year ago, we were able to re-assign seven people to other jobs who had previously worked on our manual casing line,"* says O. L. Moulthrop, Western's vice president in charge of production.

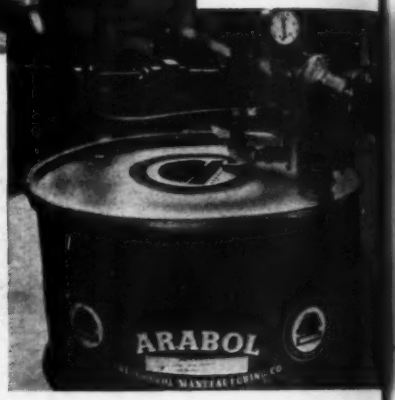
With the "Sure-Way," a single operator positions the empty case — the rest is automatic: conveying and aligning packages, elevating and tiering, loading case and lowering to the discharge belt, ready for sealing. All this at speeds up to 240 packages a minute! Cases virtually any product in a rigid or semi-rigid container, or product that takes a rigid shape. Many other cost-saving features are exclusive with the versatile "Sure-Way." Write today for all the facts.

FREE NEW BULLETIN
— just off the press, fully describes the "Sure-Way" Caser — mail today!

FOOD MACHINERY AND CHEMICAL CORPORATION
Canning Machinery Division
General Sales Offices:
WESTERN: SAN JOSE, CALIF. • EASTERN: HOOPESTON, ILL.

FOOD MACHINERY AND CHEMICAL CORPORATION
P.O. Box 1120, San Jose 8, Calif., or
103 E. Maple St., Hoopeston, Ill.
☐ Please send me your Bulletin on the "Sure-Way" Package Caser.
☐ Have your representative call. 532-12

Name _____ Position _____
Company _____
Address _____
City _____ Zone _____ State _____
Product(s) _____



SIGNED– SEALED– and DELIVERED

IN PERFECT CONDITION

The Whirlpool Automatic Washer – highly efficient and justly popular – is built to exacting, scientific standards. Equal thought has been given to its exterior design and fine appearance.

And no less thought has gone into the packaging which protects both its precision parts and its gleaming finish during shipment. It is the kind of protection that only sound design and quality packaging methods can produce.

Arabol Case-Sealing Adhesives are playing their part in this packaging process – adhesives particularly designed to stand up under both rough handling and extremes of climate.

Here, as in a hundred industries, Arabol is privileged to serve the leaders.

Somewhere in your business you use adhesives. Somewhere near your place of business one of the fourteen Arabol plants and warehouses stands ready to serve you.

We invite the opportunity to submit samples for you to test in your own plant – under your particular working conditions – for your specific requirements, whatever their nature. That is the one kind of testing that assures you of satisfactory results. Your inquiry to Department 48 will bring a prompt response.

★ ADHESIVES ? ARABOL ! ★

ADHESIVES ? ARABOL

71

YEARS OF PIONEERING IN THE MAKING OF ADHESIVES

ARABOL

ADHESIVES ? ARABOL

THE **ARABOL** MFG. CO.... *a nationwide organization serving major users of industrial adhesives*
EXECUTIVE OFFICES: 110 EAST 42nd STREET, NEW YORK 17, NEW YORK • CHICAGO • SAN FRANCISCO
LOS ANGELES • ST. LOUIS • ATLANTA • PHILADELPHIA • BOSTON • PORTLAND, Ore. • ITASCA and McALLEN, Tex.
CINCINNATI • DENVER • TAMPA • LONDON, Eng.

FIBREBOARD CREATES* the precise cartons, cases and packaging for your MEAT PRODUCTS.

*Stock items or special orders. Plain or printed. Call our nearest office for personal service.

FIBREBOARD PRODUCTS INC. Head Office: San Francisco 11, California
Fibreboard Products (Eastern Division) Inc., Philadelphia and Baltimore

SALES OFFICES—West: Billings · Boise · Denver · Fresno · Los Angeles · Oakland · Phoenix · Portland · Sacramento · Salem · Salinas · Salt Lake City · San Diego · San Francisco · San Jose · Seattle · Stockton · Yakima · East: Baltimore · Chicago · Easton · Lancaster · New York · Philadelphia · Reading

this insert lithographed by Milprint, Inc.

these days... *mama rolls her own!*

Will your product find its way into Mrs. Smith's shopping cart today? Well that depends . . . !

. . . Not on the supermarket clerks, because they're few and far between. Not on the manager, because he's busy keeping the eagle eye on costs and sales.

. . . Not on the cashier, for she won't see Mrs. Smith until she's ready to check out.

It does depend on whether or not your package catches Mrs. Smith's eye, stops her long enough to tell the story . . . and convinces her to buy!

That's where your package needs the Milprint touch . . . for **built-in salesmanship** . . . for unequalled packaging experience, expert counsel, customer-winning design and unsurpassed printing facilities. It pays off in sales, when you call your Milprint man—**first!**

Milprint* INC.
PACKAGING MATERIALS
LITHOGRAPHY & PRINTING

Reg. U. S. Pat. Off.

printed cellophane, pliofilm, polyethylene, saran, acetate, glassine, nylon, foils, laminations, bag cartons, bags, lithographed displays, printed promotional material

general offices, Milwaukee, Wisconsin . . . sales offices in principal cities

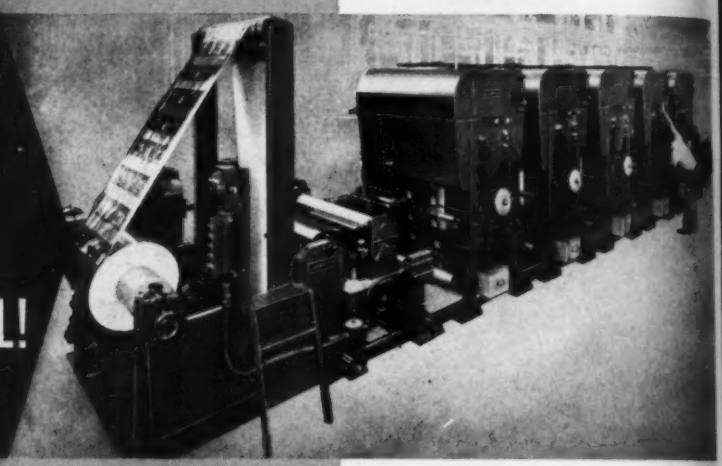
high-speed, high-volume printing and converting are simplified

. . . with this **NEW** Rotogravure Press with Rewind Delivery

the secret is

CENTRALIZED CONTROL!

All press equipment can be controlled from each color or control station. All controls are on the operator's side of the press. All running controls are FULLY AUTOMATIC



AUTOMATIC COMPREHENSIVE CONSTANT-TENSION CONTROL . . . from roll stand to delivery, hydraulically-actuated mechanisms maintain constant, *balanced* tension on all points of the continuous web.

AUTOMATIC ELECTRONIC RUNNING-REGISTER CONTROL OR MANUAL PUSH-BUTTON CONTROL . . . maintains precision printing register at all production speeds.

AUTOMATIC MAINTENANCE OF PRINTING PRESSURE — Hydraulic impression cylinders maintain, and return to, exact pre-set printing pressure.

The only adjustment required to operate press over full printing range is the Vernier setting of the variable speed pull tension control which:

1. *Stabilizes web travel throughout printing section.*
2. *Permits rewinding delivered rolls of ANY DESIRED DENSITY!*

Models	14"*	20"*	26"	36"	44"
Max. Print. Width	14"	20"	27"	36"	44"
Max. Web Width	15"	21"	28"	37"	45"
Min. Cyl. Circum.	9"	13"	17"	17"	17"
Max. Cyl. Circum.	18"	26"	34"	34"	34"

Production speed (with rewound roll delivery) on:	Speeds up to
Cellophane	500 feet per minute
Glassine, sulphite, light paper, paper-backed foil	600 feet per minute
Kraft and heavy paper and board	800 feet per minute

*14" and 20" models maintain printing pressure by electric push button control

This precision-built *complete* rotogravure unit prints *most* stocks—from light films to heavy, rough papers and board—with impression pressures from 0 ("kiss") contact to 400 lb. per lineal inch. Precision-built for sensitive, delicate work, yet able to withstand heavy impressions, this unit will give more-than-satisfactory service for years with practically no maintenance. It will maintain accurate register and fidelity of reproduction—even with heaviest production schedules.

FULLY-AUTOMATIC RUNNING CONTROLS *PLUS* ALL THESE QUALITY FEATURES:

- Heavy duty unit drives maintain register with minimum control.
- Full retention of all tonal qualities in printing cylinder insured by full-range doctor blade adjustment, sensitive hydraulic impression adjustment, and uniform inking in the first quadrant of printing cylinder with secondary inking.
- Individual color unit dryers provide maximum area of web under dryers with minimum web leads.
- All printing units readily converted to back printing without turning bars.
- Equipment explosion-proof wired.

Write today for catalog of Champlain press equipment and full information on NEW Champlain Rotogravure Presses with Rewind Delivery. **Champlain Company, Inc., 88 Llewellyn Avenue, Bloomfield, N. J. Chicago office: 520 N. Michigan Avenue, Chicago 11, Ill.**

Champlain

Champlain manufactures a complete line of roll-fed rotogravure, flexographic, letter press, cutting and creasing and allied equipment for packaging and specialty printing.

What do you **Look** for in a bleached board Supplier?

If just any old board is good enough for your use — Crossett Bleached Food Boards are better than you need.

How about service? When the market gets really tight are you sure to get your normal requirements or will you get part board and part excuses?

If you want a really fine top quality board that is white for the press and right for the press, you'll be delighted with the boards that are coming off the new cylinder machine at Crossett. If you want the assurance of a constant supply on regular delivery in all kinds of markets, you'll be interested in hearing about our policy of reserved machine time for regular customers.

May we discuss your needs and how Crossett may help you to quality board on dependable schedule?

CROSSETT PAPER MILLS

A DIVISION OF THE CROSSETT COMPANY

GENERAL SALES OFFICE • CROSSETT, ARK.

BALTIMORE ... DALLAS OFFICE H. E. Mosley 2409 Oak Lawn Ave. ... CHICAGO OFFICE R. J. Watson, W. V. Williams ... CINCINNATI OFFICE R. J. Lesley, J. T. Allen

TOO ATTRACTIVE TO DROP

Damage claims can often be reduced without extra cost... simply by improving the appearance of your container. Handsomely printed Gaylord boxes can make your product seem "special"... encourage careful handling by truckers and warehousemen everywhere.

For a box to make your product more impressive... to assure "first-class" handling... call your nearby Gaylord office.

Gaylord Boxes

CORRUGATED AND SOLID FIBRE BOXES • FOLDING CARTONS • KRAFT PAPER AND SPECIALTIES • KRAFT BAGS AND SACKS

GAYLORD CONTAINER CORPORATION • ST. LOUIS

DIVISION OF CROWN ZELLERBACH CORPORATION

Film of **ALATHON**® offers superior POLYETHYLENE RESIN transparency, impermeability and durability

Every day, more fine foodstuffs are being packaged in film of "Alathon" polyethylene resin. Du Pont "Alathon" combines superior protection with extra attractiveness . . . providing a package that is both durable and "eye-appealing."

These Dugan Brothers rolls, packaged in bags of "Alathon," keep perfectly even during the warmest summer months. In addition, their fresh, appetizing appearance is a constant visual stimulus to sales. Small wonder that sales increased when Dugan Brothers started packaging their rolls in "Alathon."

Film of "Alathon" is made from resin compounded by Du Pont to combine durability with an unusually high degree of transparency. For complete details on how you can use "Alathon" to make a better package for your product, mail coupon.

There is a difference in polyethylene resins — specify **ALATHON**® *for your packaging needs*

DU PONT
ALATHON®
Polyethylene Resin

E. I. du Pont de Nemours & Co. (Inc.), Polychemicals Department
Room 243 Du Pont Building, Wilmington 98, Delaware
In Canada: Du Pont Company of Canada Limited, P. O. Box 660, Montreal, Quebec

MAIL TODAY FOR ALL THE DETAILS

Please send me more information on Du Pont "Alathon" polyethylene resin. I am interested in evaluating this material for:

_____
_____
_____

Name _____
Position _____
Firm Name _____
Street Address _____
City _____
State _____
Type of Business _____

HIGH SPEED . . . CLOSE TOLERANCES

High-Speed packaging operations put today's paperboard to the supreme test.

We know that the moving parts of a machine must be made to closer tolerances as speeds increase.

The same is true in a folding boxboard – the elements which determine its printing and working characteristics must be controlled within closer limits.

These qualities, vital to the high speed production of a carton, are found in converting board grades bearing the *Eastex* trademark.

EAST TEXAS

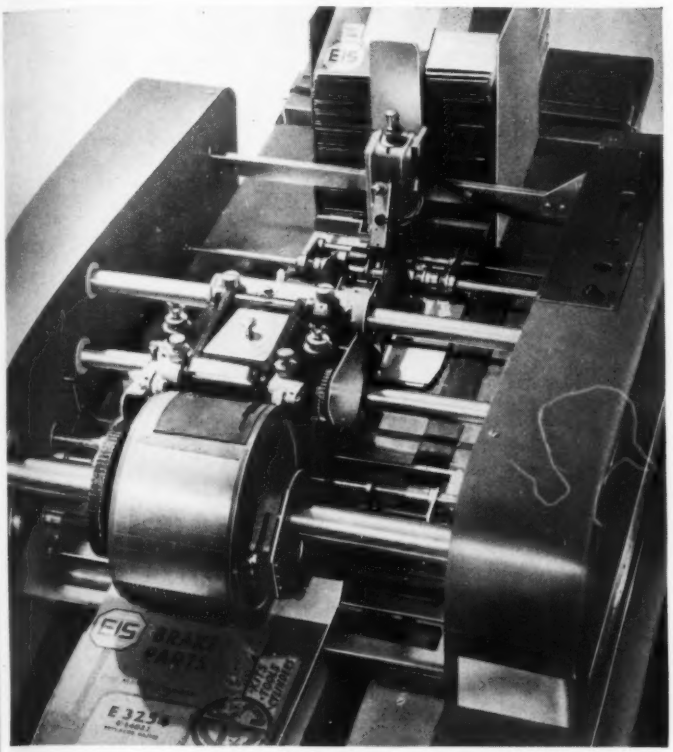
Pulp and Paper Company

GENERAL SALES OFFICE
P. O. Box 816, Silsbee, Texas
Telephone Evergreen 3-3711

EASTERN SALES OFFICE
122 East 42nd St., New York City, N. Y.
Telephone OXford 7-2980

WESTERN SALES OFFICE
1003 Builders Bldg., Chicago, Ill.
Telephone RAndolph 6-1868

New!... Pitney-Bowes' revolutionary Package Imprinter



Automatically imprints at speeds up to 7,500 items an hour!

- **Cuts container costs**
- **Eliminates wasteful preprinting**
- **Imprints only as needed to meet current production**

THIS amazing new machine can imprint folding cartons, bags, other containers — at speeds up to 7,500 an hour! It even does high-quality imprinting on envelopes and dealer advertising literature. Adjustable without tools, it can be easily operated by anybody... Sharply reduces the volume and variety of container inventories, lowers printing costs, and eliminates the waste in the preprinting of packages. A big money saver, and a real money maker. See it as soon as you can! Call any Pitney-Bowes office for a demonstration or send coupon for free illustrated folder and booklet of actual case studies.

The model 4800 uses instant drying, flexographic ink, needs no mixing... gives accurate register in an area as large as 4" by 18", and on most coated or uncoated surfaces, including foils and plastics. Handles material up to 18" by 18", and from .010" to 3/16" thick. Printing drum uses rubber mats or metal type from 6 pt. up. One knob controls printing pressure. Power stacker provides large capacity, easy removals. Rugged construction for years of dependable service.

PITNEY-BOWES

Imprinting Machines

Made by the originators of the postage meter... Service from 272 cities in U. S. and Canada

PITNEY-BOWES, INC.
4826 Crosby Street
Stamford, Conn.

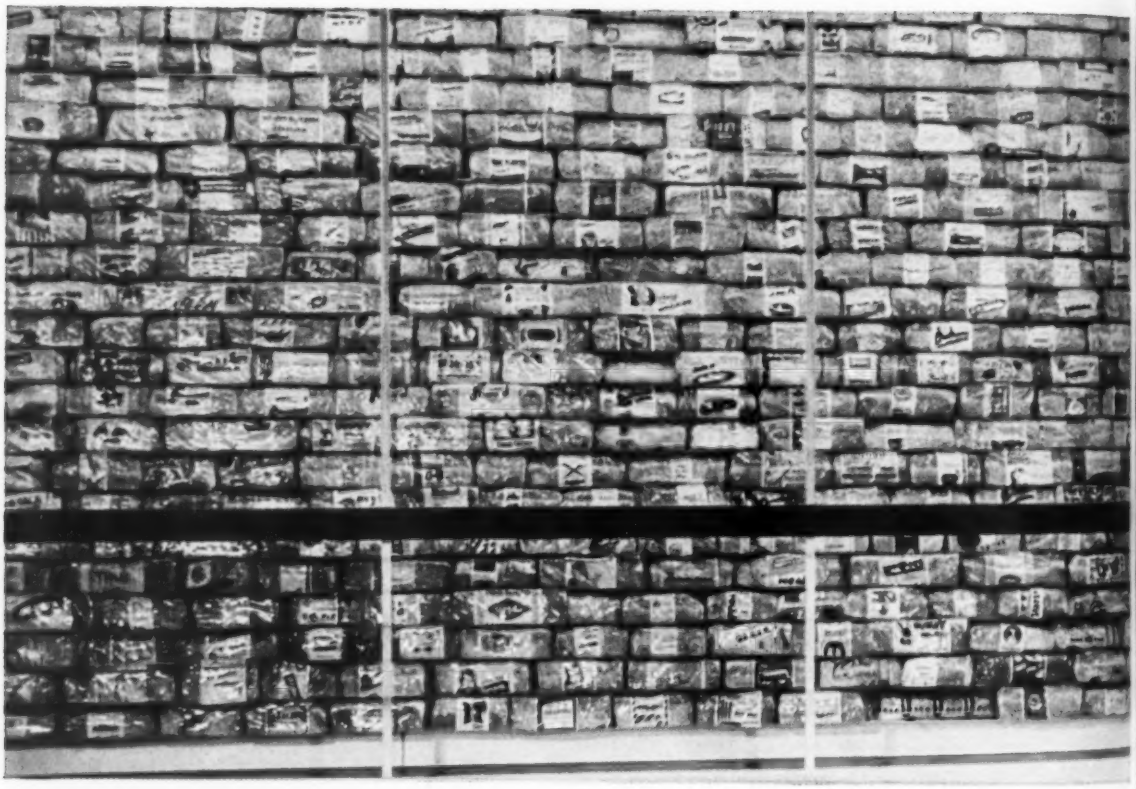
Send free Package Imprinter folder and case studies to:

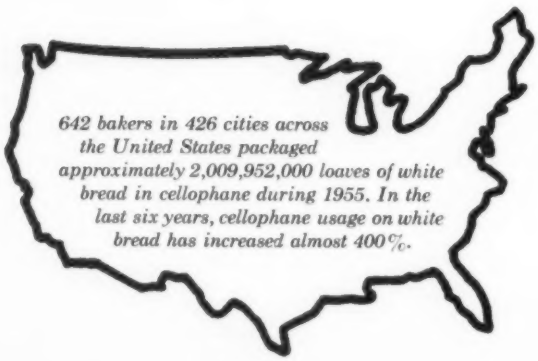
*Name*_____

*Address*_____

GROWING TREND FROM COAST TO COAST

Shoppers like ce for white bread- ar



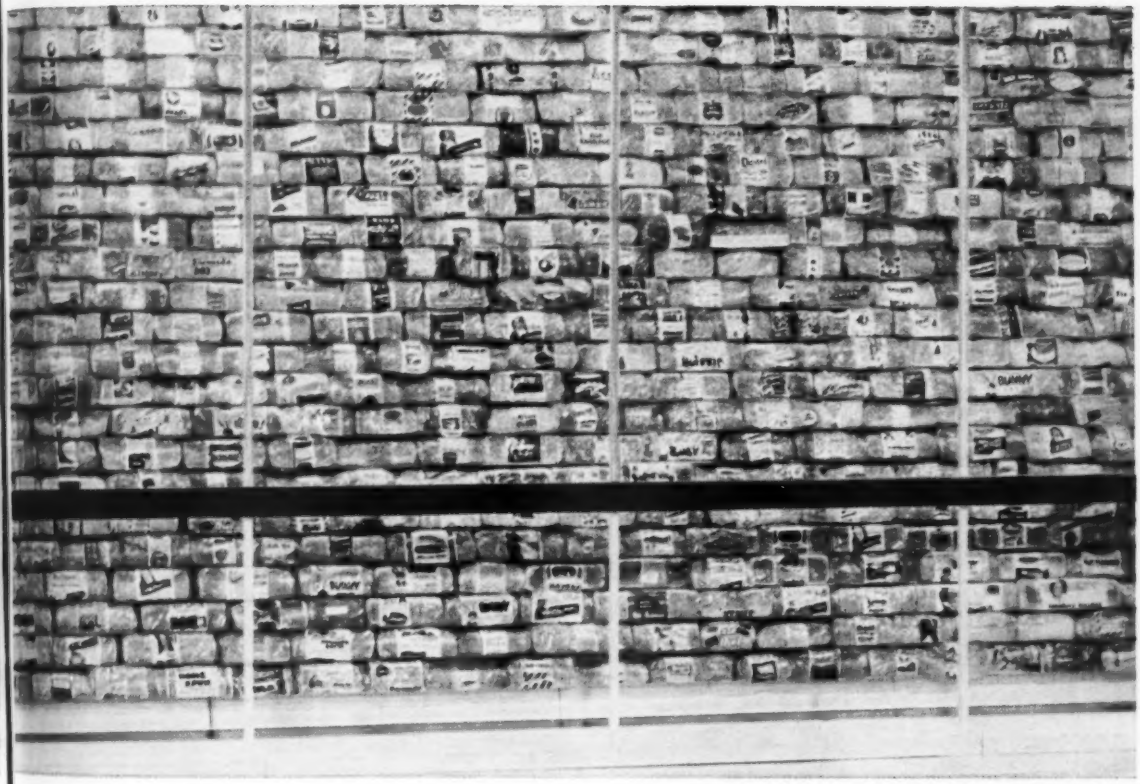


642 bakers in 426 cities across the United States packaged approximately 2,009,952,000 loaves of white bread in cellophane during 1955. In the last six years, cellophane usage on white bread has increased almost 400%.

This colorful "wall" of over 900 different loaves of white bread in Du Pont cellophane—displayed at the 1955 Baking Industry Exposition—is a dramatic symbol of the growing trend to packaging that lets shoppers see what they buy. Bakers, like other packagers of all types, realize that a clear view of the product is an outstanding merchandising advantage in this era of self service.

The use of transparent packaging—cellophane—on white bread has increased almost 400% since 1949. Other industries report even greater

cellophane packaging and other products, too



growth in cellophane usage. The main reason is that in the competition for the consumer's dollar cellophane helps a product sell itself. Other reasons—cellophane is unequalled for freshness protection, sanitary appeal, and consumer acceptance.

Why not give your product a transparent package of Du Pont cellophane—the package that sells best in today's market. Join the growing trend. E. I. du Pont de Nemours & Co. (Inc.), Film Department, Wilmington 98, Delaware.

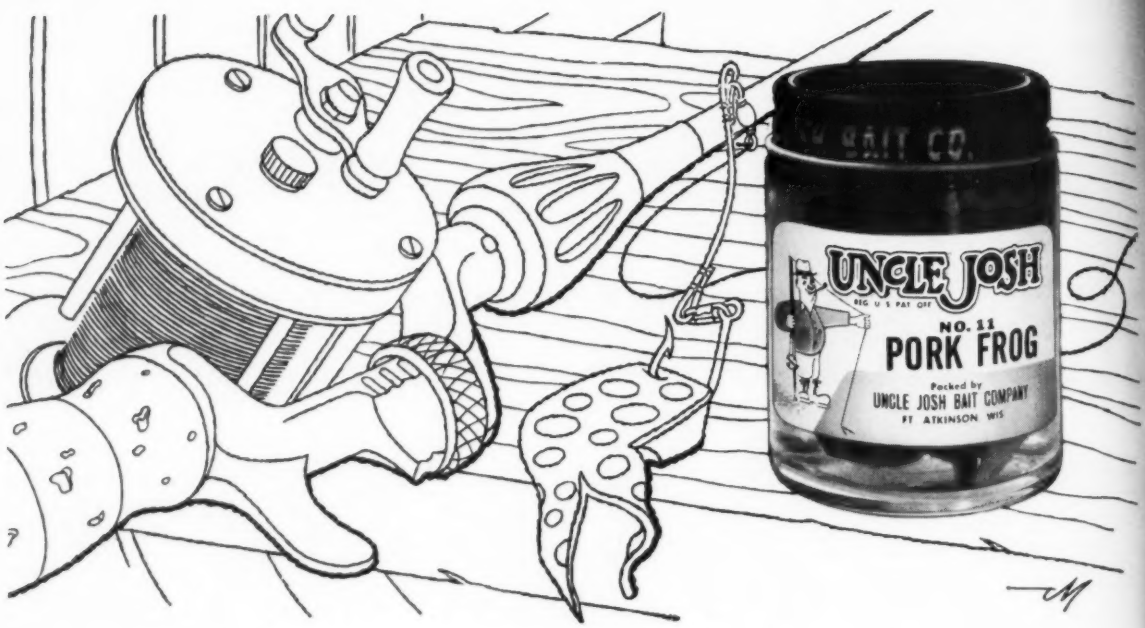
Du Pont Cellophane

Shows what it protects...protects what it shows!

DU PONT

REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING...*THROUGH CHEMISTRY*



They went fishing for bass

. . . and caught a business

Alan Jones and Urban Schreiner of Fort Atkinson, Wis., had cast for bass all morning without a strike. Fish just weren't hitting artificial lures, and the two men had searched the shoreline in vain for frogs to use as bait.

Finally, they hurried into town, bought some fat pork, and cut it into the shape of a frog. Bass greedily grabbed their lures on that fishing trip 33 years ago, but their biggest catch of the day was the idea for the Uncle Josh Bait Company.

The founders soon discovered, however, that it was a lot easier to catch fish with pork rind than to make it into a lure.

But one by one their problems were solved, and today the Uncle Josh Bait Company has a complete family of pork rind lures—for bait casting, spinning, fly rods, and even salt water fishing.

Paramount Paper Products Company manufactures the eye-catching labels that have helped Uncle Josh land more fishermen as customers, and become the leader in its field.

The distinctive design and i-appeal® of Uncle Josh labels keep customers brand conscious of their favorite pork rind bait. If you are fishing for more sales, contact Paramount for complete information on a free label design service that will give your package more buy appeal.

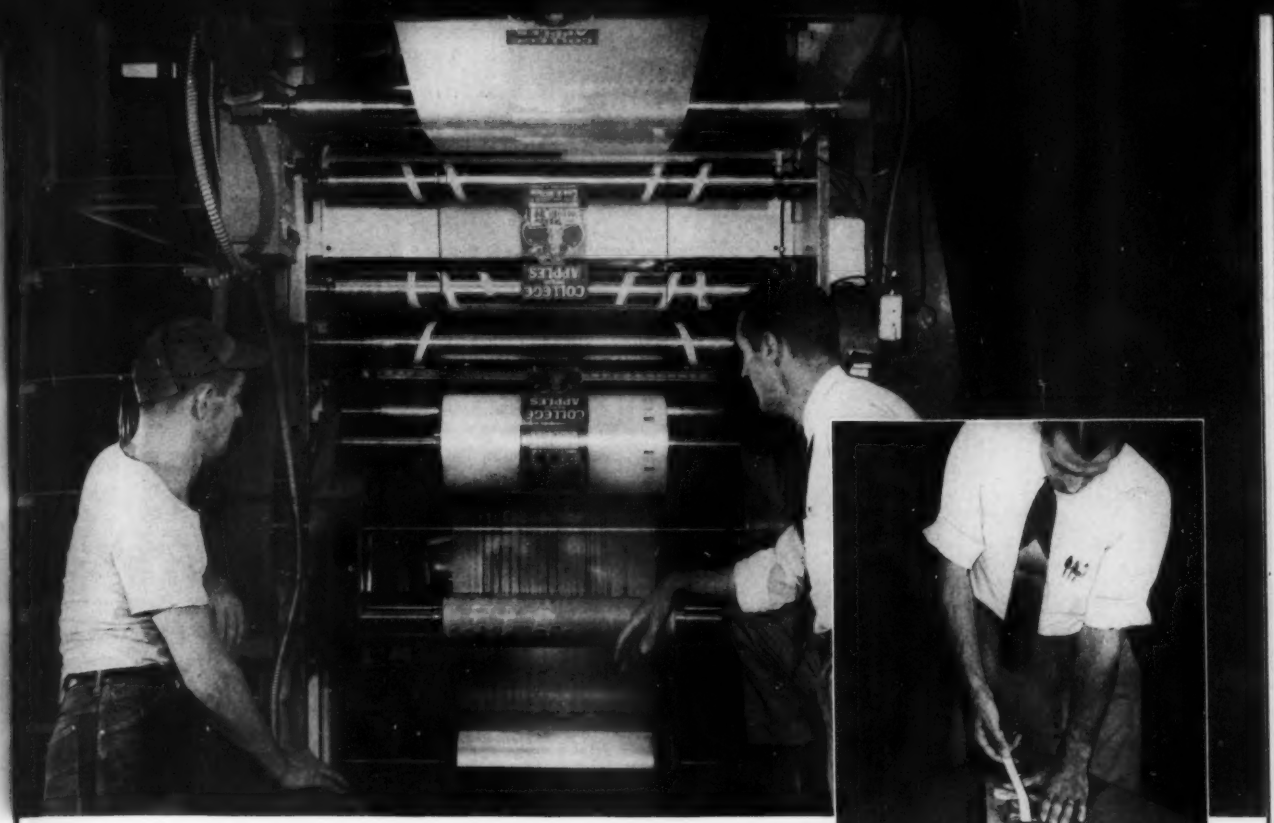
For the right labels to do the job right, write to

Paramount

i-APPEAL®

PARAMOUNT PAPER PRODUCTS CO.
4401 North 23rd Street Omaha 11, Nebr.

In Canada, 218 Front St., East, Toronto, Ontario



New Flexographic Ink Has

X-TRA Staying Power... X-TRA Hiding Power

BBD's new EXCELLOPAKE "400 X-TRA" Ink is making a sensational hit with flexographic printers of cellophane, polyethylene, foil, glassine and paper stocks. And there are a dozen good reasons why.

One good reason is the X-TRA strong adhesion of multi-purpose "400 X-TRA" Ink. At both extremes of temperature, as well as normal room temperature, "400 X-TRA" has outstanding *staying* power. Even when printed on the heavier, highly plasticized moisture-proof cellophanes and the anchor-coated films used for packaging meats, "400 X-TRA" does not rub, chip or flake off.

Another good reason is the X-TRA whiteness and opacity of *White* "400 X-TRA" Ink. It's a *whiter* white with more *hiding* power than other flexographic inks... affords a better foundation for other colors it underlays or backs up. That's why jobs printed with "400 X-TRA" Ink look X-TRA bright and X-TRA sparkling.

Use EXCELLOPAKE "400 X-TRA" Ink for X-TRA beauty of printing... X-TRA smooth performance on press... X-TRA assurance against block, bleed and offset problems. "400 X-TRA" is available in white and all colors, and we suggest you make a trial run of this X-TRA good ink real soon.

Look at these other X-TRA good reasons for using BBD's new EXCELLOPAKE "400 X-TRA" INKS

X-TRA SLIP QUALITY ...has anti-drag quality when dry; enables printed rolls to unwind more freely, run more smoothly on bag and wrapping machines.

X-TRA BLOCK and HUMIDITY RESISTANCE ..."400 X-TRA" will not block, ink to ink or ink to face, at temperatures to 130°F.

X-TRA LOW-TEMPERATURE RESISTANCE ... withstands the cold and moist conditions of dry and wet refrigeration.

X-TRA HEAT RESISTANCE ... releases from heat-sealing elements at temperatures to 275°F., resists smudging, sticking, smearing.

X-TRA MILEAGE ... the X-TRA solids content of *white* "400 X-TRA" makes it go further per pound. Tested against other whites, "400 X-TRA" has been proved to give more coverage per dollar.

X-TRA VERSATILITY ... may be used—without special solvents—on any type of cellophane, treated polyethylene, aluminum foil, glassine and specialty papers.

For more information about "400 X-TRA" Ink? Contact your nearest BBD office... or *Bensing Bros. and Deeney, 3301 Hunting Park Avenue, Philadelphia 29, Pa.*

Bensing Bros. and Deeney
Flexographic Ink Specialists
PHILADELPHIA • CHICAGO • SAN LEANDRO, CAL.
CAMBRIDGE, MASS. • MONROE, LA.
MANTON BROS. Toronto, Canada
TRENAL CO. Brussels, Belgium
COLORA, LTD. Berne, Switzerland
Export: McLAURIN-JONES CO., New York

HAIR TINTS OR DYES

WOUND ANTISEPTICS

WINDSHIELD DEFROSTER

NEW IDEA$

$ IDEA

"PANCAKE" MAKEUP OR COMPLEXION CREAM

Here are additional $ ideas $ for possible development. They were suggested by marketing men of chemical specialties who believe such products may have a future as aerosols. **What do you think?**

Anti-fogging spray (inside glass surfaces)
Anti-mold spray
Anti-static sprays for specialized uses . . . on synthetic fibers, etc.
Baby oil
Bubble bath
Bird cage spray
Cat repellent
Cattle grub control
"Cement" adhesives
Coatings and protective films
Corn Borer worm oil (sweet corn)
Crack caulking (showers, bathtub, etc.)
Crack sealers for painters
Cleansers for heavy duty porcelain cleaning
Carbon smudge cleaner for offices
"Ditto" ink
Dog repellent
Diaper rash preventative
Eye Glass Cleaner
Gun bluing
Glue & mucilage
Mouse & rat repellent
Moth repellent
Mirror cleaner
Nail polish
Plant spray (powder)
Plastic spray—preserving valuable papers
Paint—anti-skimming
Rubber cement
Smoke spray for beekeepers
Spray materials—home repairs
Signal or alarms for odorless gases
"Soot Bomb" for coating Kymograph recorders
Sun screening spray for windows (to reduce sun fading of house furnishings)
Starch (laundry)
Tooth paste
Toilet germicide
Vapor inhalent
Wall cleaner
Window caulking repairs (plastic)
Or other products that can be sprayed, brushed on, dusted or daubed!

GC
Allied Chemical

Basic Chemicals for American Industry

BABY OIL OR RASH PREVENTATIVE

HAIR DRESSING FOR MEN

CRACK CAULKING AND SEALERS

$ for profitable aerool!

CASH IN ON THEM...WE'LL HELP YOU!

Remember the first insecticide bombs? The first hair spray aerosols? The first aerosol shave creams? They were only *ideas* a few brief years ago, and almost before you could count ten, they were selling by the millions!

Here are some brand new ideas for potential aerosol products. If you market cosmetic, drug or chemical specialties, check them over. There may be one that can be the next big seller in your line. Or perhaps you have some other aerosol ideas of your own. In either case, we'll be glad to discuss them with you in confidence, and to work with you or your Contract Filler in developing them. Our aerosol laboratory, testing facilities and accumulated experience will be at your service in changing ideas into money makers!

Trouble-Saving Short-Cuts to Profits in Aerosols

You can look to our Aerosol Technical Service staff for help in developing a formulation with *Genetron* Propellants that will be *exactly right* for your product.

Among other services, we will help you locate experienced Contract Fillers to take over the entire job of packaging your products as convenient, push-button aerosols. Whether you want a small test run or sustained volume production, you can get into aerosol packaging with the help of a Contract Filler *without investing a cent in special equipment* . . . without adding space, without hiring or training specialized personnel.

The opportunities presented by ideas listed here cannot last. Some are already being developed by alert merchandisers. So don't delay; get started in the profitable aerosol field today . . . write to:

Use the versatile

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Aerosol Propellants

The Right Propellant
For Every Aerosol Formulation

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GENERAL CHEMICAL DIVISION

ALLIED CHEMICAL & DYE CORPORATION

40 Rector Street, New York 6, N. Y.

off the shelf and hard at WORK

Most of the material in the Modern Packaging Encyclopedia Issue is *work* data . . . information which companies that make or utilize packaging can put to practical use, day-in and day-out.

This 777-page volume gives complete coverage to such important subjects as the characteristics of packaging materials and establishing package specifications. Packaging in paperboard, flexible and rigid films, metal and glass are discussed exhaustively, as are all important package decorating techniques. Of course, the principles for safe, economical packaging and shipping of industrial and military merchandise are explained in detail, too.

Countless hours of hunting for sources for materials, machinery, equipment and such custom services as contract packaging, laminating and container decorating can be saved by referring to the world-famous Directory Section. It is thoroughly indexed for fast reference. The many ads also help lead you to qualified suppliers.

On the shelf your Modern Packaging Encyclopedia does you no good; at *work* it can be one of your most valuable production tools. Use it often!

Don't Overlook the Helpful Packaging Charts

Important charts in the Encyclopedia summarize the properties of packaging films, aluminum foil and foil laminations. Other charts give detailed characteristics of molded and sheet plastics that are used in packaging.

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and you start with the best!

...Old Tavern metallics are highly resistant to rubbing and ...beautiful sheen. They print exceedingly well and give sparkling results ...line and halftone work by letterpress or offset. They're ideal for silk-...ating, too.

...use M-J Old Tavern metallics print as well as any coated sheet, they ...answer to quality cover, label, seal and box work. You also add a ...ty-appealing distinction to menus, invitations, announcements and ...when you dress them up with M-J Old Tavern metallics.

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McLaurin-Jones develops its own adhesives to meet the rigid requirements of today's high-speed, close-tolerance labelers.

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...Gummed • M-J Self-Adhesive DRY STIK • M-J WARETONE • M-J PLATED • M-J OLD TAVERN

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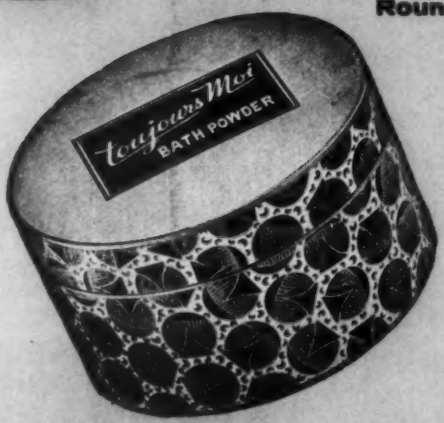

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Controlled elongation in both directions gives VISQUEEN film the strength, uniformity and body that prevents package breakage. Improves product protection in transit and stores, too. VISQUEEN film has the stiffness and uniformity that permits easier handling, quicker fabricating and faster bag filling and closing.

VISQUEEN® 'C'

is *the* printable film. Unmatched for ink adhesion. Ink stays on—won't come off.

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is tougher, has greater tensile strength, better resistance to tear and puncture. VISQUEEN is economical to use—cuts packaging costs as much as 50%—improves overall packaging.

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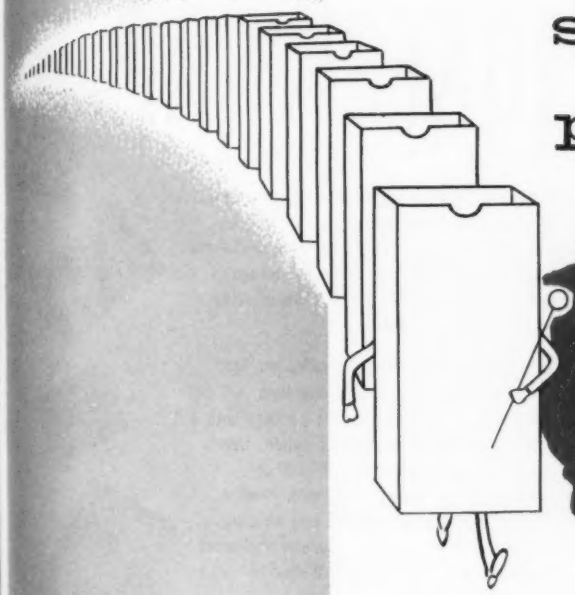

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PROFIT ON MARKET SHOWMANSHIP with American's eye-catching paper bag designs . . . sharp color, art, photographic and typographic reproduction.

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50 YEARS OF PACKAGING PROGRESS

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America's Finest Coffees are packaged by STOKESWRAP

More than 35 of America's leading coffee producers have selected Stokeswrap to package their brands for restaurant use. They have discovered how Stokeswrap not only makes a package easy and convenient to use, but also assures precise and accurate fill.

At a speed of 3000 or more units per hour in one continuous automatic operation, Stokeswrap forms and fills the package with a precisely controlled amount of coffee, then tightly and securely seals it. Printed or unprinted pouch paper, cellophane, pliofilm or other heat sealing material may be used... single, double or laminated. Special equipment to gas the package with carbon dioxide is supplied if desired.

While most restaurant packages for glassmaker coffee are 3-ounce size, Stokeswrap will package up to a half-pound as required with either auger or centrifugal feed. The same machine can be used for making packages for instant coffee as well as for glass coffee makers.

Partial list of coffee brands packaged by Stokeswrap

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Maxwell House	Ehlers	Gold Prize
Continental	Star	King
Boscul	Old Dutch	Aborns
Martinson	Wilkins	White Tower
Chase & Sanborn	Edmands	Reilly's
Sherman	Paramount	McCullagh

Write for your copy of the new 8-page Stokeswrap catalog P-801 with complete application and specification details.

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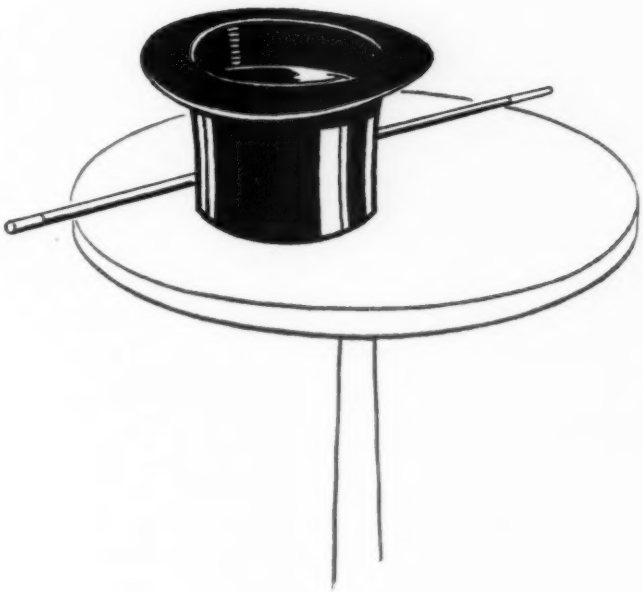
Use the **M***agic of . . .*



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COLORCAST IS MADE ONLY BY THE CHAMPION PAPER AND FIBRE COMPANY

The Magic of Color provided by

BRILLIANT *Colorcast*® **PAPER**

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will help to give strong product identification to your line of quality products. The white or one of the eight fast-to-light colors of Colorcast will dress up your packages to meet the challenge of modern selling.

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CAST COATED PAPER

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ALL CARRIED IN STOCK 26" AND 30" ROLLS

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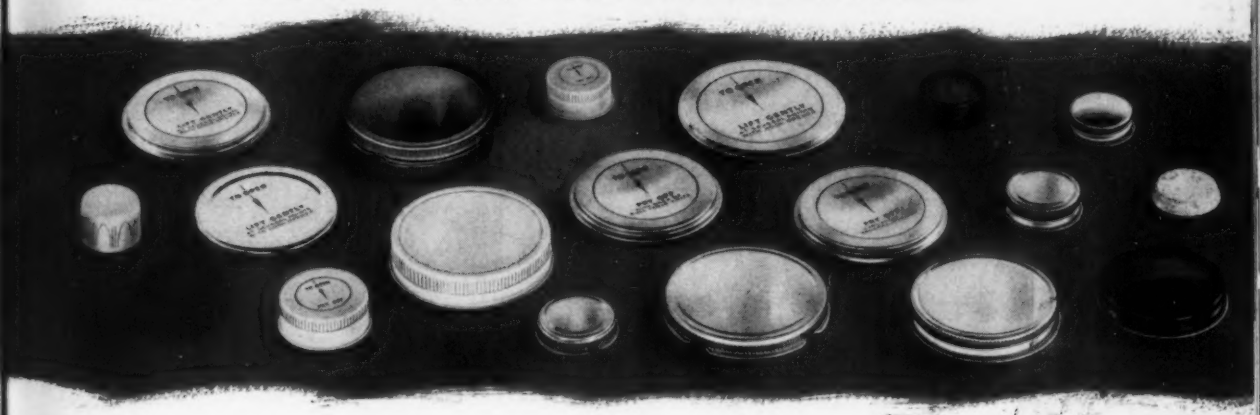
ALL-IMPORTANT
with Anchor Hocking!

Regardless of what you pack Anchor Hocking makes an Anchorglass container in a style, size and color to most attractively, efficiently and economically package it. And regardless of how you pack it—hot or cold—with or without vacuum, sterilized or processed, there's an Anchor cap and Anchor sealing machine to completely satisfy your diverse and specialized requirements.



THE controls applied throughout your production and packaging operations are all-important to you. By the same token, the manufacturing controls employed by Anchor Hocking are very important to you, also.

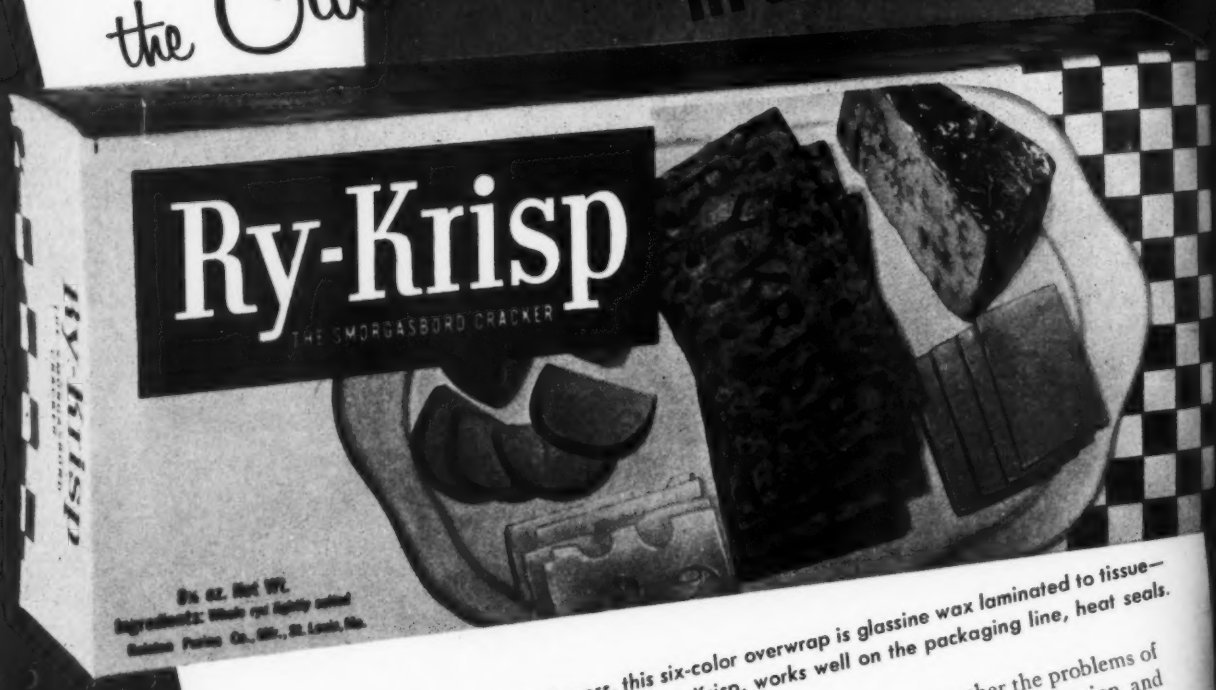
Anchor Hocking exercises literally hundreds of exacting controls, tests and checks daily in the manufacture of its glass containers and closures. From the selection of all raw materials used to the final inspection, every operation is under meticulous control.

And all of this control, involving highly trained chemists, bacteriologists, engineers, other technicians and personnel, is done but for one reason. And that is, to provide you with uniform, high quality, dependable Anchorglass® containers and Anchor® screw, lug, vacuum, metal and molded closures that will give you high-speed, dependable production and protection.

ANCHOR HOCKING

GLASS CORPORATION *Lancaster, Ohio*

the Craddock plan in action



Made and printed by Specialty Papers, this six-color overwrap is glassine wax laminated to tissue—meets the rigid protective requirements of Ry-Krisp, works well on the packaging line, heat seals.

★ ★ ★

Merchandising appeal and basic design concept by Ralston Purina.

Layout and illustrations by Ralston's advertising agency and an independent designer.

Creative and technical guidance on design reproduction by Specialty Papers.

Excellent Ry-Krisp package by all four —working closely together as a team. That's the secret of successful design-ing . . . bringing together the problems of design creation, product protection and design printing *at the start* of the development program. The result: Sound decisions at the outset. That's the Craddock Plan in action!

For Ry-Krisp, the Plan guaranteed a better design that could be produced within desired costs through the highly technical rotogravure process.

For you—for your next packaging program—the Craddock Plan can prove just as valuable. Write today for special free brochure.

THE SPECIALTY PAPERS COMPANY, DAYTON, OHIO

NEW YORK, CHICAGO, BALTIMORE, ATLANTA, OMAHA, DENVER, SAN FRANCISCO, SEATTLE, ROCHESTER, N.Y.

If you have a say in the way a product is packaged...

Styron
can make you a hero

Put yourself in these well-polished shoes for a moment. Like this gentleman, you have your choice of Styron® plastic containers. And like him, you may have some products that could use some sales help. Make great things happen by packaging those products in Styron!

Styron plastic containers offer protection in rigid packing, shipping and display. They're printable or ready for your label. They come either transparent or opaque, in hundreds of stock or custom-made sizes. They're proved point-of-sale eye-catchers. And as for merchandising power, there's nothing like them on the market!

Put your products on display in Styron plastic containers. Send for the free forty-eight page Styron catalog of packages. Sales records prove it's the best way to head yourself toward faster sales and profits. THE DOW CHEMICAL COMPANY, Midland, Michigan.

you can depend on DOW PLASTICS DOW

Look into Styron plastic containers . . your customers will

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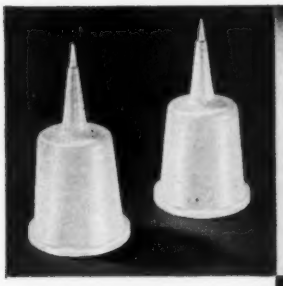
Gentlemen: Please rush your free catalog of Styron plastic containers.

Name_____ Title_____

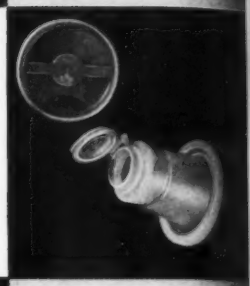
Firm Name_____

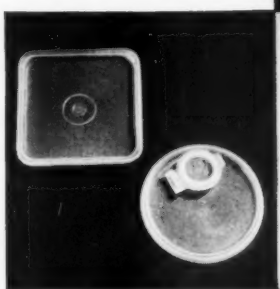
Business Address_____

City_____ Zone_____ State_____



NOBODY HAS AS MUCH EXPERIENCE AT MOLDING POLYETHYLENE AS TUPPER!





Tupper Seals are air and liquid-tight flexible covers. The famous Pour All and Por Top covers are designed for easy dispensing. They are made in sizes to fit all Tupperware containers.

The logical molder for you to consult regarding that product or package of yours which is to be made of polyethylene is Tupper. Tupper has done more than any other molder to make molded polyethylene a practical reality.

Aside from having designed, patented, and promoted successful seals, closures, and dispensers for polyethylene containers, the Tupper Corporation has vast experience in *every phase* of polyethylene packaging and polyethylene injection molding. This experience will be of major importance in improving your product, in reducing your costs, when Tupper goes to work for you.

Tupper's combination of experience, technical ingenuity, and the most modern equipment is at your service for the custom molding of your product in polyethylene. You can do no better than the best ... and the best at molding polyethylene is Tupper!

When equipped with Tupper Seals, Tupper Canisters, Sauce Dishes, Wonder Bowls, Cereal Bowls and Funnels in various sizes are the most versatile reusable containers you have ever seen.

TUPPER!
TRADE MARK

TUPPER PRODUCTS ARE FULLY PROTECTED

About 150 United States and foreign patents and patents applied for, plus numerous trademarks and copyrights, cover the design and manufacture of the various types of Tupper Seals and other Tupper Products. Unauthorized manufacture of items covered by Tupper patents will subject infringers to prosecution.

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Manufacturers of — CONSUMER, INDUSTRIAL, PACKAGING AND SCIENTIFIC PRODUCTS

Factories, Laboratories and Sales Offices:
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Showrooms: 225 Fifth Ave., N. Y. C.

Address all communications to: Dept. MP-4

To preserve original flavor...

think of **Kaiser Aluminum Foil**

1. **Imparts no taste or odor**
2. **Won't absorb liquids or oils**
3. **Positive vapor barrier**
4. **Clean and non-toxic**
5. **Blocks heat and light rays**
6. **Bars contaminants**

Leading converters rely on Kaiser Aluminum as a major supplier because we are an integrated operation, producing foil of *unsurpassed quality* in a wide range of specifications.

For names of converters eager to tackle your packaging problem, contact the Kaiser Aluminum sales office listed in your telephone directory. Kaiser Aluminum & Chemical Sales, Inc. *General Sales Office*, Palmolive Bldg , Chicago 11, Illinois; *Executive Office,* Kaiser Bldg., Oakland 12, California.

P.S. And remember–Kaiser Aluminum Foil is unmatched for eye-appeal . . . sales appeal!

HERE COMES THE BRIDE!

The gifts she got are a tiny fraction of what she needs and what she will buy in the year to come. And being young, "good looks" in merchandise *and* in packaging will influence her every purchase.

Often it costs less than you think to give your product the point-of-purchase edge of a smart, appealing package. Telling you how —how much—how effectively—is the job for the man (and men) who make a career of packaging. This is your Gardner representative, and the Gardner packaging specialists behind him.

Here come the brides—the grooms—the buying American millions.

Greet them with your product presented at its very best. In a Gardner carton.

Many of America's greatest products go to market in "Cartons by Gardner"

GENERAL OFFICES: Middletown, Ohio—PLANTS: Middletown, Ohio: Lockland *(Cincinnati)*, Ohio
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THE GARDNER BOARD AND CARTON CO.

Manufacturers of Folding Cartons and Boxboards

From the Gardner Gallery of Famous American Packages

Cannon gift set cartons were designed by Dorrit Osann and associates of Cannon Mills Packaging Department—engineered and produced by Gardner from KROMEKOTE® BRAND (Cast Coated Board) with color researched inks. KROMEKOTE, a premium paperboard, is made by Gardner and custom cast coated by The Champion Paper and Fibre Company. Samples are available. Write Department 916.

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Fresh!
POTATO CHIPS
What makes a powerful package ?
ARNOLD
Gravure printed waxed paper. Customer design.
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Flexographic printed waxed paper. Customer design.
Flexographic printed cellophane. Customer design.
Letterpress printed polyethylene-lined packet. Domino and individual customer design.

NASHUA PRINTED PACKAGING

Give your product the powerful merchandising appeal of Nashua Printed Packaging. Ask to have a Nashua representative call and show you "The Power of the Package". Nashua Corporation, Dept. PM-4, 44 Franklin Street, Nashua, N. H. Sales offices in New York, Philadelphia, Chicago, San Francisco, and Peterborough, Ontario.

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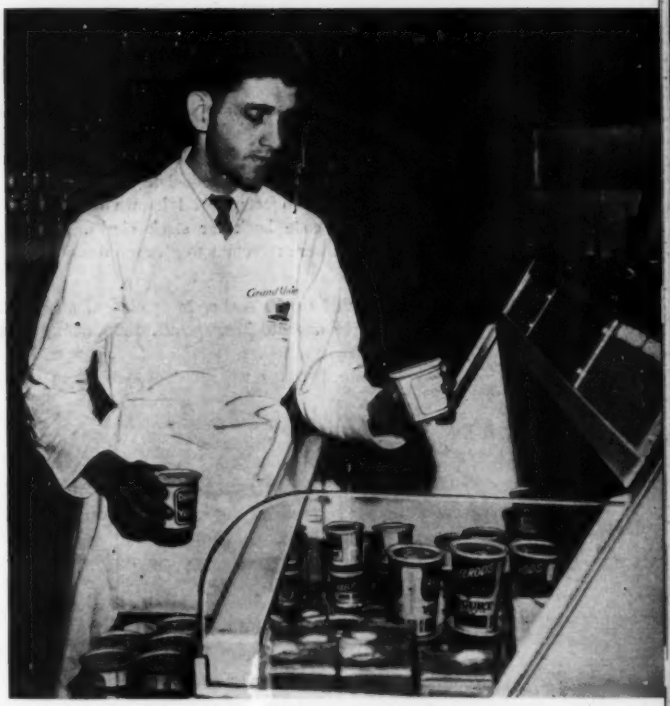
MODERN PACKAGING

Blind date

How blind should it be? Quality control is the retailer's aim, too, and he's not helped by packages that won't tell their ages



Can he read it? Coded date on perishable food package is no help to the retail clerk and won't move first things first and eliminate products of doubtful quality if he can't decipher it.

Who benefits from the code date put on a food package? Obviously, marking a container with the date on which it was filled has many necessary and practical advantages for the man who makes and markets the contents. But is there any good reason why this same coded date cannot be made of service to the man who sells the product, too?

Food retailers would like to share in the benefit. Knowing the age of each package on their shelves obviously would help them do a better job of controling quality. There's just one problem: A coded date is not of much help if it is so thoroughly coded that no one but the maker can decipher it.

As the situation now stands, code dates on virtually all food packages are of no use at all to the clerk in the store—the man who must see that merchandise on the shelves is rotated properly, that goods which come in first also go out first.

For many products, such as most canned foods, of course, stock rotation is of minor importance, since their expected shelf life is quite long. But for a large number of perishable and semi-perishable foods—cheese, baked goods, crackers, cereals, margarine, coffee, tea and so forth—proper stock rotation plays an essential part in insuring that the customer is satisfied.

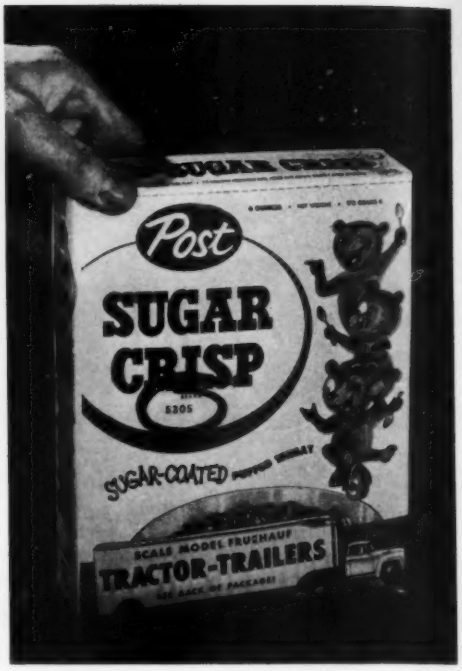
The only way to make certain that perishable foods are sold in proper rotation and that out-dated merchandise is removed from the shelves is to restock from behind or below—have clerks always put new packages behind or under the old when shelf stock is replenished. Often, this is much easier said than done. It is much simpler for the stockman to set new merchandise in front of older packages which are still unsold. And too many clerks today will always take the easy way out.

In a busy supermarket, neatly arranged rows of packages can soon be thoroughly messed up by fast-moving shoppers. And, without knowing the dates of the packages, a clerk will find it quite difficult to re-arrange them properly.

Most large grocery chains are aware of the potential value which date codes could have in insuring proper stock rotation. But their hands, unfortunately, are tied by the almost complete lack of uniformity among food manufacturers' coding systems; by the difficulty in deciphering most codes, and, in some cases, even by the problem of *finding* the code number.

As a result, most food stores, a MODERN PACKAGING survey discloses, have had to forego the benefits of dated packages. Only the larger chains have been in a position to act. They have adopted uniform codes for their private-label merchandise, inserted

One chain's solution to code-date puzzle—by Jewel Food Stores—is to compile all known data in periodically revised code book for stock clerks. But some manufacturers were reluctant to give information.



Model code date, in opinion of many retailers, is simple one on Post cereals. Prominently located and clearly printed, first "5" indicates year 1955; "305" means package was produced on 305th day of year.

code data in their store operating manuals, issued special bulletins regarding the codes uses on particularly troublesome items.

Methods and viewpoints

One of the most thorough jobs of utilizing code-date information has been done by Jewel Food Stores. For the past three or four years this company has published a "code book" which covers the majority of the perishable food products sold in its stores. This book lists the various manufacturers, the brand names of their products, the keys to the codes which they use on both individual packages and shipping cases, whether each code is based on the product's manufacturing date or the shelf-life expiration date and the expected shelf life of the products.

The list of products included in the Jewel book gives a good indication of the kinds of foods whose freshness is a matter of concern to food retailers today. It includes: baby foods, bacon, baking mixes, bread, breakfast food, butter, cake flour, candy, cigarettes, cheese, coffee, cookies and crackers, delicatessen products, desserts, dried fruit, eggs, flour, gravies, luncheon meats, macaroni products, milk products, nut meats, oleomargarine, pies and cakes, potato chips and salad dressing.

Copies of this book have been distributed to all stores in the Jewel chain and the information it contains is periodically added to and revised.

It was not easy, apparently, to compile this data. "We have had a real battle on our hands to even get the keys to the codes used," says Jewel. Many manufacturers, it seems, were reluctant to part with the codes, since they felt that only their own representatives should know the key and take the responsibility for seeing that store stocks are arranged properly. But, in most cases, Jewel has eventually been successful in getting food manufacturers to cooperate. There are still, however, a handful of holdouts.

H. R. Rasmussen, Jewel's advertising and sales promotion manager, explains his company's feelings on the matter in this way:

"The real key to having fresh merchandise available to all customers at all times is in the hands of the stock boys, who must be religious in their efforts to rotate shelf merchandise. It is only through easily read codes that they will do this job regularly.

"Anything that can be done to make codes easier to read will make them more impressively important in stock rotation. The easier it is at this point, the better will be the over-all results for the customer, for ourselves, and for the manufacturer."

Jewel is not alone in feeling strongly about the importance of making dates readable by store personnel. James Cooke, vice president, Penn Fruit Co., said at the 1955 AMA Packaging Conference:

"Many systems of coding defy the average clerk. Some code markings are easily confused with price marks. In some instances, the package must be opened to discover the code. As a result of this confusion, many retailers have abdicated any responsibility for quality control of packaged merchandise. If the processor is going to discharge his responsibility for quality control to the consumer, he must

Codes take many forms— and mean nothing if you haven't got the key

first devise an intelligible and universal system of coding. Once this is done, the basis is laid for active rotation and freshness control."

Other executives of large food chains, queried by MODERN PACKAGING, were unanimous on this point. Here are some brief quotes:

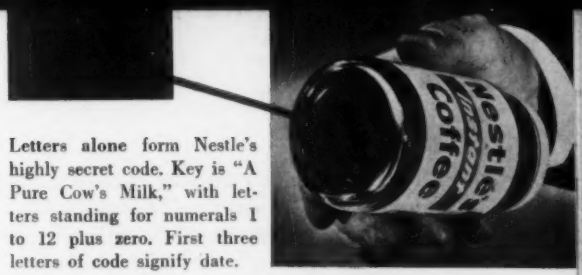
From Albert E. Rain, director of grocery merchandising, The Kroger Co.: "The simpler a code is made, the better . . . A standardized and uniform code-dating system would certainly be desirable."

From Emerson Brightman, director of grocery and non-foods operations, Grand Union Co.: "A store can't do a proper job of rotating stock with the complexity of codes now in use. And, in many cases, they are so complicated that the average clerk can't retain the keys to them even when they are available."

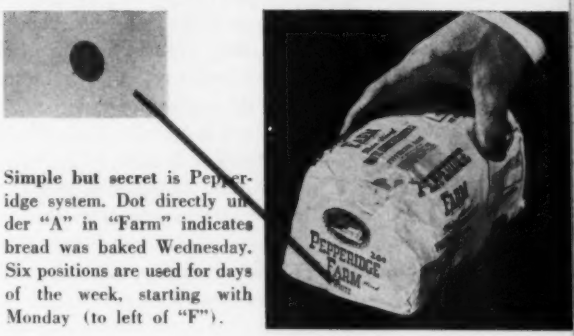
From R. H. Birchard, vice president, American Stores Co.: "If codes are to be used, our feeling would be that they should be much easier to decipher. We feel it would be advantageous to the trade and the public in general if a uniform system of coding could be adopted by manufacturers."

Among the food manufacturers, there is no such unanimity of opinion about date codes. Some companies want them simple; others prefer them deliberately complicated. Some are more than willing for retailers to have complete information about them, others would rather keep the keys a secret. Some companies feel that a semi-public code would give valuable information to their competitors, or bring about a flood of returned goods.

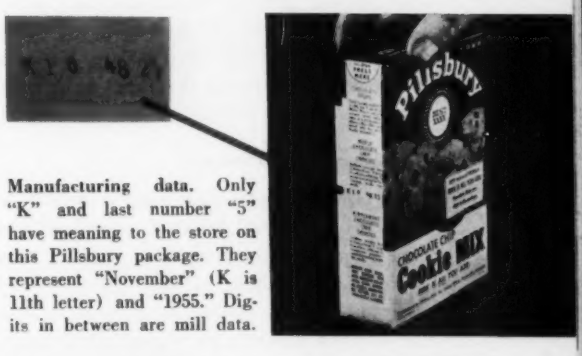
There are other reasons, of course, why many food manufacturers have, traditionally, been rather close-mouthed about their codes. Some of them believe that a too-public coding system—one which the customers themselves could understand—would disrupt the orderly flow of products off the shelves. If



Letters alone form Nestle's highly secret code. Key is "A Pure Cow's Milk," with letters standing for numerals 1 to 12 plus zero. First three letters of code signify date.

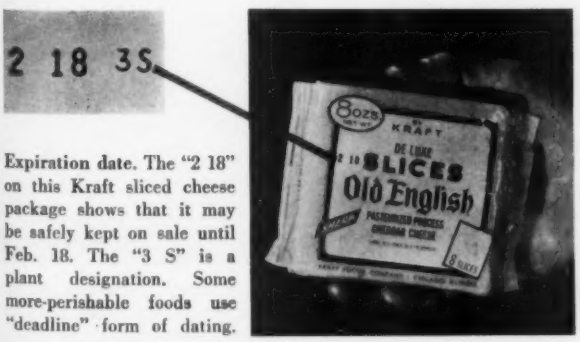


Simple but secret is Pepperidge system. Dot directly under "A" in "Farm" indicates bread was baked Wednesday. Six positions are used for days of the week, starting with Monday (to left of "F").



Manufacturing data. Only "K" and last number "5" have meaning to the store on this Pillsbury package. They represent "November" (K is 11th letter) and "1955." Digits in between are mill data.

Briefest of all is Kellogg's single numeral, which merely indicates the month of packaging; "11" is for November, the 11th month of the year.



Expiration date. The "2 18" on this Kraft sliced cheese package shows that it may be safely kept on sale until Feb. 18. The "3 S" is a plant designation. Some more-perishable foods use "deadline" form of dating.

Product identification is included in Swifts' baby foods code, useful in case label is lost. "B" at end stands for "chopped beef," "C" is code letter representing "1955." Three digits mean it was packed on 262nd day of year.

customers got into the habit of reading the dates on packages, the newest would always go first and shelf stock would get thoroughly worked over as shoppers sought out packages with the latest dates.

One basis for this fear is the fact that the average customer has very little idea what constitutes the shelf life of a grocery product and, if given the opportunity to do so, might reject anything that didn't leave the factory the day before yesterday.

Another argument is sometimes raised against the use of more readable code dates by a number of the larger manufacturers. Companies which maintain well-staffed crews of representatives who make frequent, regular visits to the stores want to have their own men read dates and take full responsibility for the arrangement of goods of the shelves.

But for the smaller manufacturer—as well as for the smaller grocery store, who may not get such close attention—this thinking does not have the same force. And, in almost every store, the ultimate responsibility for seeing that only fresh merchandise is sold must rest with the store's own personnel.

An accepted principle

Even though they may differ widely in how they think codes should be used, almost all food packagers agree on the basic idea of using a code date.

In the first place, in some states it may be required by law for certain food products. Also, it can be of great value in tracing defective merchandise, in controlling sales and distribution, in identifying contents when labels are lost, in establishing evidence in law suits. For these reasons, and for many others, it is very difficult to find a food manufacturer of any size today who does not use some sort of coding system. The great variety of automatic marking machines now available which can be fitted directly into the packaging line make the actual physical job of coding each container a simple one.*

But each manufacturer, aware of these benefits, has gone ahead with the formulation of an individual code system which would best suit his own needs. There has never been any sort of coordination or centralized planning and, as a result, the retailer today is faced with a hodgepodge of different manufacturers' codes—a miscellaneous assortment of numbers and letters which are of little help at all to the average store clerk.

The number of systems used in code dating is almost endless. They may employ from one to a dozen numbers, a string of letters, or a combination of letters and numbers. Or the code may be based on more devious devices, such as the location of a dot, the number of stripes on a wrapper, a particular color of ink or the use of an inconspicuous marking of some sort.

Decoding the date may involve adding, subtracting, using a code word, counting the days in the year, or knowing which of a long string of figures to use and which to ignore.

Basically, most manufacturers' codes, when unraveled, will tell the exact or approximate date on which a product was packaged. The most popular way of doing this is to use a single digit to designate the year, such as "6" for "1956," and a two- or three-digit number for the day of the year, such as

*For pictures and descriptions of machines used for code dating, see "Equipment for Marking," *Modern Packaging Encyclopedia for 1956*, p. 486.

Code dates applied in four different ways

With ink. Automatic, high-speed marking by inked rollers or dies is commonly used way of coding glass and metal containers.

With pressure. Aluminum foil wrappers can be coded by means of indentations, but resulting marks on edge of margarine package are not very easy to read.

"41" for Feb. 10. Using this system, the complete date Feb. 10, 1956, might then be coded in four different ways: "6041," "641," "416" or "0416."

But not all are that simple. The system may employ a separate number or letter to indicate the month; it may use additional numbers to show plant, shift or batch; it may use an extra letter or two to identify the package's contents. Some codes may eliminate some of this information, giving only day of the year, or week of the year, or month alone, or day of the month. Daily-delivery products, such as bread and milk, are usually dated with just the day of the week.

The code may appear on any part of the package —immediately visible on the front label or out of sight on the bottom. It may be printed, stamped, perforated or indented. It may be clearly legible, or nothing but a blur. (While picking out typical examples of codes to illustrate this article, one of our editors pawed through 48 jars of a brand of instant coffee on a supermarket shelf without finding one with a code date that could be read at all.)

With all this variation in the coding system, location and legibility of code dates, is it any wonder that retailers have found them somewhat less than useful for their needs?

Problems

Within the framework of a code-dating method and all its possible variations, there is still another point of difference. Should the date itself be the date of manufacture or the "expiration date" when the product theoretically becomes unsalable?

From the retailer's point of view, an expiration

One date—eight codes

How a package produced on February 10, 1956 could be date-coded by eight different cereal manufacturers.*

Company	Product	Code	Explanation
Duffy-Mott Co.	Clapp's baby cereal	CFAJB	C = plant number F = 1956 (F=6) AJ = 10th of month (A=1; J=0) B = February (2nd month)
General Foods Corp.	Post Sugar Crisps	6041	6 = 1956 041 = Feb. 10 (41st day)
General Mills	Wheaties	0416	041 = Feb. 10 6 = 1956
Kellogg Co.	Corn Flakes	2-56	2 = February 56 = 1956
Mead Johnson & Co.	Pablum	11610	11 = February (counting backwards from December) 6 = 1956 10 = 10th of month
Pillsbury Mills	Farina	B131116	B = February (2nd month) 13111 = mill numbers 6 = 1956
Quaker Oats Co.	Puffed Rice	2L6	2 = February L = mill designation 6 = 1956
Ralston-Purina Co.	Wheat Chex	606	6 = 1956 06 = 6th week of year

*Codes above employ systems listed in Jewel Food Stores' Code Book, 1955 edition. Some subsequent changes may have been made by manufacturers.

With hot dies. Electrically heated steel type imprints semi-perforated mark on paper labels that is permanent and legible.

With perforations. Folding cartons can be perforated with a date code before they are filled and sealed. This is the most permanent of all marking systems.

In-store dating is one method retailers have adopted to keep shipping cartons moving out of stock room in proper rotation. As each case arrives at the store, it is marked with incoming date.

date is probably preferable, since this gives him clear-cut control over shelf life. It would be much easier to simply tell the stock clerk: "When the date on the package is reached, take it off the shelf."

Unfortunately, things aren't that simple. There is no infallible way of determining the actual shelf life of any product. For most food products it depends largely on temperature and humidity, which can vary widely from one section of the country to another, and from one month to another. Two packages emerging side by side from the filling line may be shipped to opposite extremes of climate.

For this reason, the date on the package is usually the date of manufacture and the retailers themselves are left to judge shelf life, based on local conditions.

In the Jewel code book mentioned above, a figure such as "30 days," "60 days" or "three months" is listed after each item, to show store employees how long after the coded date it may remain on sale.

Expiration dates are used, however, on many of the more perishable products, such as dairy items and baked goods. In these instances, the shelf life is short and climatic differences are not a factor.

Proper stock rotation does not begin and end on the sales floor. It is also essential that cases of foods be moved out of the back room in the right order. Code dates here are perhaps even more important, for a mistake means the loss of a whole case.

But, as things now stand, the dates on shipping cases are usually just as hard to read as those on the packages themselves. Some are undecipherable, some are illegible, some are missing altogether. Recently, however, a joint meeting of the National-American Wholesale Grocers' Assn. and the Grocery Mfrs. of America did suggest that it would be desirable for manufacturers to agree on the same simple number code, showing day of month and year.† Pending some such uniform practice, many retailers have adopted the practice of stamping each case with the date it actually arrives in the store.

Is a uniform system possible?

Store operators unquestionably would welcome any uniform system agreed upon by the manufacturers that would bring order out of the present chaos. As one executive puts it, "A uniform system of code dating is Utopia for the retailer and would make his job, if he wants to be really sincere about offering his customers the best possible merchandise, a lot easier."

This would require a real awakening of interest on the part of manufacturers and forthright action by a trade association or a Government agency. It will take time.

But without going all the way toward uniformity, there is much that could be done in education to make the most of present systems. It should be possible for a manufacturer to maintain the unique features of his private code and still give the average store clerk a clearer picture of how it operates.

One forward step—suggested by a leading manufacturer of marking equipment—would be to make sure that all code numbers used by all manufacturers work in a constantly ascending progression. In other words, the latest date, no matter what coding method is used, would always have a higher number than all earlier dates.

Although a method such as this would not give the clerk precise knowledge about the actual dates of all packages, it would at least let him know the order in which they ought to be sold.

Food manufacturers, in general, may tend to underestimate the importance of such a simple thing as changing a digit or two on a date code so that clerks in a supermarket can understand it. But, as has been pointed out frequently on these pages, extra convenience for the retailer is one of the keys to success in today's mass marketing.

Retailers are vitally concerned with keeping customer good will by eliminating staleness complaints; anything the manufacturer can do to help with this job—even if it means revealing or changing a time-honored code system—ought to be seriously considered.

And, of course, the fact that a staleness complaint hurts most of all the manufacturer himself should be too obvious to mention. The store clerk stands ready to work for you in this respect—if only you'll give him the simple tools he needs.

†See "*Whose* Convenience?" MODERN PACKAGING, Nov., 1955, p. 93.

Clear glass for Schenley

Top-brand blended whiskey abandons traditional amber bottle and promotes new package with intriguing shipping case loaded with display material

First new package for Schenley Reserve since Repeal is clear glass, says Schenley, because color-consistency problem characteristic of blends has been solved. New label is larger, with black and gold lettering to carry out company's "Golden Age of Elegance" theme. Background is white. Added touches are gold stripe, gold wrap-around top label, gold-sprayed phenolic closure.

In what it announces as an all-out drive to capture first place in the blended whiskey field, Schenley Distillers Co. has seized upon a new package as one of its most powerful weapons. And, to support it, Schenley has introduced a new advertising-display-and-shipping carton that brings point-of-sale promotion down to the smallest corner bar or liquor store.

Schenley Reserve—one of the "Big Three" blends—thus adopts its first completely new package design since Repeal. The familiar black-labeled bottle has been replaced by one that is a bit taller, slightly narrower in the neck and has an entirely different kind of label.

Instead of an oval-shaped black label, the new Schenley Reserve bottle carries a larger, rectangular, deckle-edged white label, printed in gold and black—in keeping with the current Schenley theme: "The Golden Age of Elegance." A gold foil wrap-around label covers the top of the bottle and a diagonal gold stripe slashes across one of the lower corners of the label. The closure is gold-sprayed phenolic.

The most radical change is the use of clear glass rather than the traditional amber. This is possible, says Schenley, because the color-consistency problem characteristic of blends has now been solved. Heretofore, colored glass has been used generally to hide variations in the consistency of blended whiskeys. A three-finger indented grip on the back of the bottle gives a firm hand hold.

The new bottle and label design are carried through in the same style on the standard fifth, quart, pint, half-gallon and miniature sizes—though not all sizes may be sold in all states.

Backing up new bottle, Schenley has laid plans

[*Continued on page 221*]

Magic box of advertising tricks is "AdverCase," new shipping carton developed to back up new Schenley Reserve bottle. It contains or provides all the printed display pieces shown here.

These cartons glow with soft red, green and yellow shades of new daylight fluorescent inks applied in normal letterpress run. Solid blocks of color alternate in the design, except for black halftone and the adjacent white areas. Lettering is black or reverse white. Yellow cap distinguishes the pantie girdle, green the regular girdle.

Fluorescence by letterpress

In a significant new move in the girdle-and-bra field, Warner Bros. becomes first user of folding cartons printed routinely with new scuffproof, daylight-glowing inks

Strikingly vivid cartons for Warner Bros.' latex girdles and panties, making their appearance this month in women's-wear and department stores, are significant in three respects:

1. They are the first folding cartons to be printed with a new type of daylight fluorescent inks, which, applied by the letterpress process, appear for the first time to make fluorescent colors practical for regular, commercial packages.

2. They mark the definite acceptance of self-selection packaging by one of the high-style leaders of the foundation-garment field.

3. They are merchandised from counter displays which introduce a new technique in the wood-grain printing and vacuum forming of high-impact polystyrene sheet to give a luxury wood effect at light weight and low cost.

The new letterpress fluorescent inks emit a distinct glow in daylight and under all forms of artificial lighting. Daylight fluorescence—unlike that which depends upon "black light" for its best effect—results not only in the reflection of light, but in the emission of additional light produced by wave lengths which ordinary colors absorb. Hence, the distinctive, soft glow of these new colors. They are particularly effective under the fluorescent lighting found in most retail outlets today.

Unlike previous oil-base fluorescent colors which have been applied to packages as a novelty effect by silk screening or by rotogravure, these new resin-base letterpress inks are firmly anchored and, if varnished, will not rub off, it is said. In the case of the Warner Bros. cartons, the fluorescent inks are applied in two impressions and then overpainted

Bra cartons use only one fluorescent color, for striking contrast with black halftone illustration area. Color varies with style of bra contained. Price spots, top and front, are dark blue-gray.

Actual fluorescent colors of girdle carton as used on heavier carton board are duplicated in this example of letterpress printing. Note that all necessary selling information appears on one top panel.

ILLUSTRATION COURTESY SWITZER BROS.

with a clear varnish, which gives a glossy, scuffproof surface comparable to that of conventional gloss inks.

Brighter than the brightest of conventional colors, the Warner boxes are calculated to command the eye on any store counter. Yet the shades chosen—Dawn Rose, Flare Green and Lunar Yellow—have a soft, feminine quality, suggestive of spring flowers. Combined with white areas and black lettering, the colors produce an admirable blending of delicate design and dramatic color.

An unusual, long, triangular box with a slip-on cap is used for the various styles of latex girdles and panties, with alternating panels of the three fluorescent colors surrounding a center panel on which is reproduced a halftone picture of the garment on a model.

Three items in the bra line also employ the new colors on conventional tuck-end folding cartons. The choice of one fluorescent color, used with large areas of black, distinguishes the type of bra contained.

Warner Bros. was convinced of the advisability of adopting merchandising rather than shelf packages for these garments when test marketing showed sales increases as high as 33⅓% for a bra in a folding carton with self-selection information.

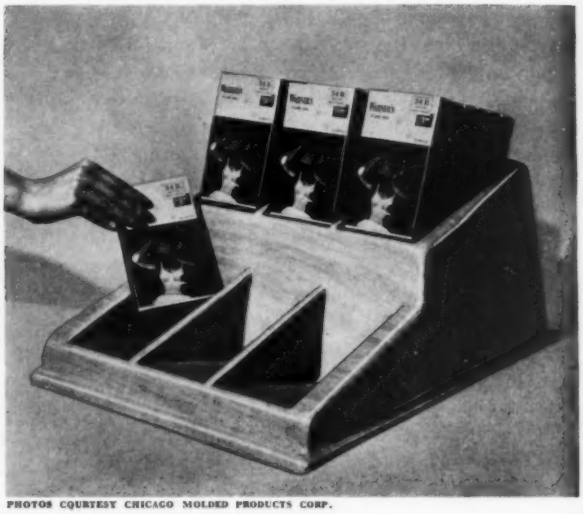
In women's-wear and department stores today, most sales of girdles and bras come between 11 a.m. and 1:30 p.m.—just at the time when stores' sales staffs are lightest. To capture this business, therefore, it has become essential to display these garments on counters in packages that will attract, inform and sell with a minimum of the clerk's time.

In the case of Warner's new packages, the halftone illustration clearly shows the style of the garment and concise copy on the top of the package identifies color, size and price, along with a range of measurements for those who may be in doubt. Warner Bros.' heavy consumer advertising helps to pre-sell shoppers as to styles and other qualities of the garments and many women today, it is found, know their size and will buy closed bra and easy-fitting girdle packages without hesitation.

To make sure that the packages will get out on the counters to catch the wandering shopper's eye, Warner's is supplying the two vacuum-formed counter display units—one for girdles and one for bras

Counter display base is vacuum formed of wood-grain printed polystyrene sheet. Compact arrangement of triangular cartons permits selection of 31 girdles from 12-by-25-in. counter space.

Bra merchandiser, with the same driftwood finish on polystyrene sheet, holds 36 packages. The acrylic-framed standard duplicates Warner tags that are attached to all garments.



PHOTOS COURTESY CHICAGO MOLDED PRODUCTS CORP.

—whose beauty, dignity and utility practically insure acceptance in any decor.

A striking simulation of smoothly finished driftwood, each of the light-weight plastic merchandisers has a chrome standard rising at the back topped by an acrylic-framed sign which is an exact replica of the identification tag appearing on all Warner garments, done in the same white and metallic blue colors.

Due to the compact nesting of the triangular boxes, the girdle stand, which takes counter space of only 12 by 25 in., holds 31 girdles. The packages are so arranged, in three tiers, that the cap, containing the vital size, color and price information, is visible at eye level on no less than 19 packages at one glance.

The bra stand holds 36 packages, arranged in two tiers for face-on display. It takes counter space of 18 by 21 inches.

The carton printers report no difficulty in handling the new-type fluorescent inks according to the supplier's instructions. Although a single impression is said to be adequate for indoor use, two impressions are recommended for depth and permanency wherever the packages may be exposed to sunlight. The varnish overprinting is necessary where considerable handling is to be expected. Because they are semi-transparent, the inks should be printed only on white stock of good brightness. The fluorescent colors are most effective when surrounded by dark or strongly contrasting non-fluorescent colors. A clean press and the use of only clean, smooth, glue-glycerine gelatin rollers are essential. Otherwise, the quick-drying, resin-base inks are handled like any high-gloss varnish base inks.

Warner Bros. is pleased with the stir that these packages have created in their initial appearance and believes that it is starting a trend not only in the use of fluorescent colors in packaging generally, but in new, self-selling packaging and display in the foundation-garment industry in particular.

Credits: *Cartons produced and printed by The Warner Bros. Box Co. Div., 325 Lafayette St., Bridgeport 1, Conn., using "Fluorescent-Extra" letterpress inks by Switzer Bros., Inc., 4732 St. Clair Ave., Cleveland 3, Ohio. Counter merchandisers vacuum-formed by Newhart Products, Inc., Devon, Conn., using printed S-300 rubber-modified polystyrene sheet furnished by Chicago Molded Products Corp., 1020 N. Kolmar Ave., Chicago 51.*

Bundling in polyester film

By using benzyl alcohol to solve heat-sealing problem,
C. F. Sauer successfully transparent-wraps
heavy extract cartons on standard automatic equipment

For the first time, polyester film ("Mylar")[1] is being handled on a standard automatic wrapping and heat-sealing machine. Now operating at full speed, this initial commercial application will be watched closely by the many packagers who are looking forward to using this tough, durable transparent film on conventional high-speed equipment.[2]

Key to the apparent success of this operation is the use of a small amount of benzyl alcohol as a solvent to soften the film for heat sealing. Up to now, the biggest drawback to the use of polyester film has been the difficulty of heat sealing it on conventional equipment. Now, that problem seems to be approaching a solution.

The trail blazer in this development is C. F. Sauer Co., an old, established Richmond, Va., spice and extract house. For some time, it had been attracted by the many advantages of bundling extract packages in groups of 12 overwrapped with transparent film.[3]

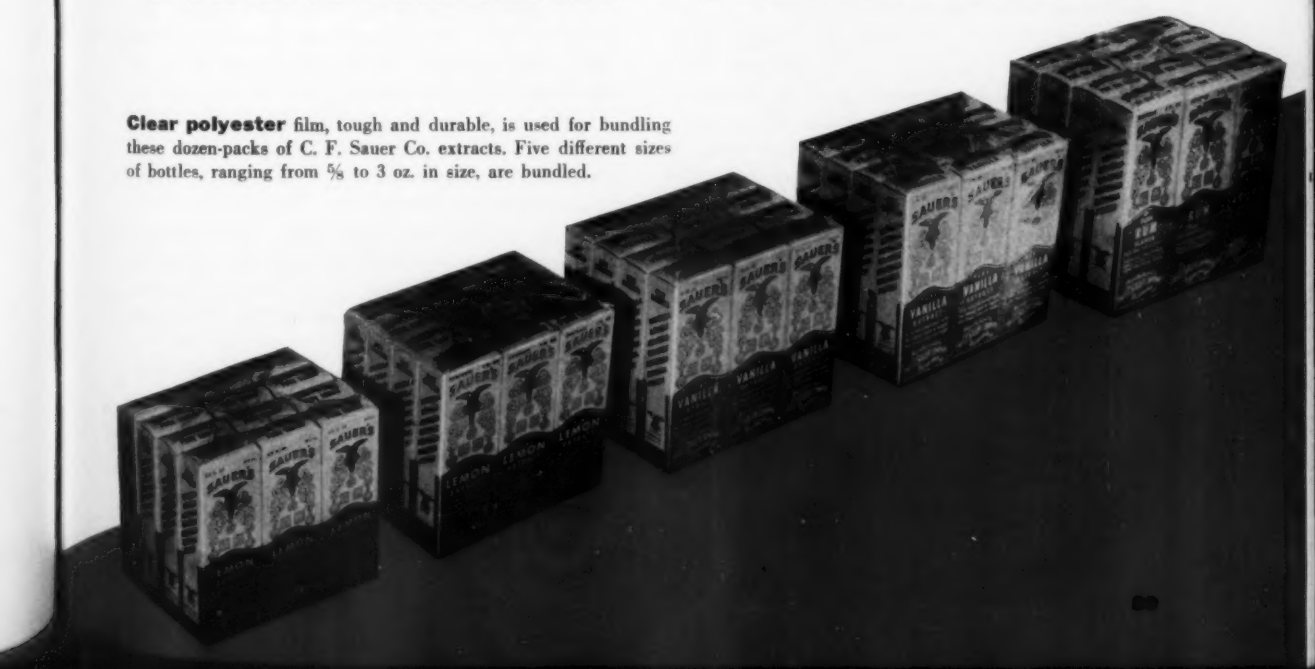
Recent installation of two packaging lines that could automatically fill and label bottles of extract at a 130-bottle-a-minute rate, created a bottleneck. Under the packaging method then in use, the individually cartoned extract bottles were gathered by hand and placed a dozen at a time into chipboard cartons. These in turn were packed into shipping cartons and loaded onto pallets for transfer to the stockroom or shipping department. With the new high-speed lines in operation, congestion resulted at the shipping end.

Best solution to this problem appeared to be the elimination of the chipboard cartons and, instead, to bundle the dozen units of extract packages in transparent film.

This would have many advantages: It would reduce considerably the manual labor required to set up and fill the cartons. It would make positive identification of the contents possible at all levels of distribution. It would give extra visibility and promotional value to the well-known Sauer trademark.

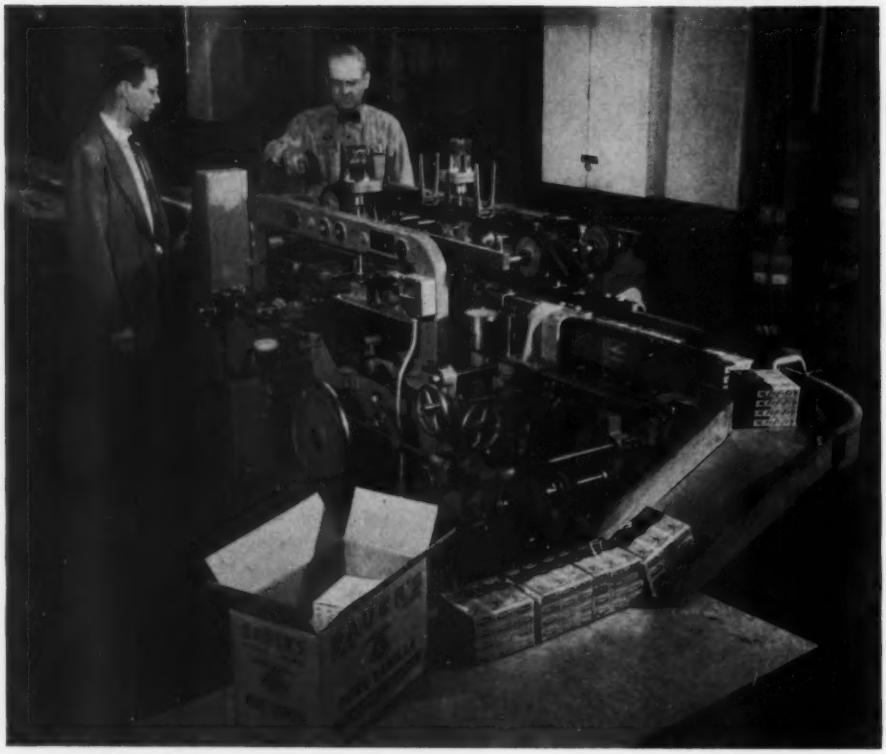
These arguments quickly convinced the Sauer management that transparent bundling might be what they were seeking. The automatic wrapping machine was installed and test bundles of a dozen cartons of bottled extract were sealed inside cello-

[1] "Mylar" is the registered trademark for the polyester film produced by E. I. du Pont de Nemours & Co., Inc.
[2] See "Polyester Film Is Here," MODERN PACKAGING, July, 1955, p. 98.
[3] See "Bundlers Turn to Film," MODERN PACKAGING, July, 1955, p. 75.



Clear polyester film, tough and durable, is used for bundling these dozen-packs of C. F. Sauer Co. extracts. Five different sizes of bottles, ranging from ⅝ to 3 oz. in size, are bundled.

ALL PHOTOS COURTESY DU PONT



Automatic wrapping with polyester is now commercially practical on this standard-model machine converted for use with new film. It handles output of 130-package-per-minute lines. At left, above, is Conrad F. Sauer, III, company president.

phane overwraps. But Sauer was not satisfied with the strength and shelf life of cellophane for bundles weighing from 2½ to 7 lbs. In the spring of last year, the project came to an abrupt halt.

The only feasible alternate solution appeared to be bundling in kraft paper with glued-on end labels for identification. This method would have the advantages of automatic operation, but not those of a transparent wrap.

A more attractive possibility was in sight: polyester film. Working closely with technical representatives of the film producer and the supplier of their wrapping machine, C. F. Sauer, III, company president, and T. A. E. Sauer, vice president, became convinced uncoated one-mil polyester film might be used on Sauer's automatic equipment.

A few relatively simple engineering changes had to be made first: a means of applying the benzyl alcohol to make the polyester film heat sealable, a device to eliminate static and a redesign of heating and sealing mechanisms.

Three electrically powered static eliminators were added to the standard-model machine to take care of the static problem in the polyester film. As the film unwinds from the roll (which is mounted at right angles to the flow of the package line) it now passes across static bars immediately before and after the film cut-off knife. A third bar is located just before the bottom measuring roll. All three static eliminators operate on the air-ionizing principle.

After the proper length of film has been cut off to enclose an accumulated group of 12 cartons, the machine forms the film into a tube, makes a long seal on the bottom, folds tucks in either end, and finally seals the two ends.

Two different methods are used to apply the benzyl alcohol. For the long seam, a revolving glue wheel, like that used in kraft paper applications, is employed. One of the initial problems encountered at this stage was an excess of the solvent that caused smearing of the ink on printed cartons. This was controlled by the use of an adjustable doctor blade on the driven glue wheel.

On the two end seals, the benzyl alcohol is supplied from two glass containers mounted above the machine. From these, it flows down to two felt wicks, which apply a very light wipe to the folds just before the sealing stage.

Although it is the key factor in this method of heat sealing polyester film automatically, the benzyl alcohol actually is used in very small quantities. Sauer estimates that less than a pint is required to seal more than 6,000 bundles.

An essential engineering change in the wrapping

Machine adjustments required for polyester handling

machine was the redesign of the sealing plates. For the long seam, a new, separate heater-plate assembly was inserted in the aluminum bed plate to help maintain accurate sealing temperatures. This assembly consists of a sealing surface, two 450-watt strip heaters and an adjustable thermoswitch. Isolation of the heater plate from the rest of the bed plate by a $\frac{1}{8}$-in. air gap cut heat loss to a minimum.

The two side sealers were also redesigned and spring loaded to compensate for variation in the lengths of packages. As much as practical, these plates were also isolated from their supports to minimize heat losses.

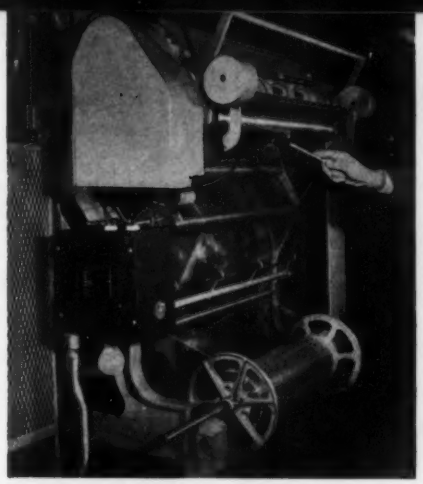
Most satisfactory sealing temperature, Sauer believes, is 350 deg. F. Originally, higher temperatures were used, but it was found that these tended to distort and weaken the film.

There were also one or two other minor engineering changes. These—and the other modifications described here—were accomplished without undue difficulty or expense.

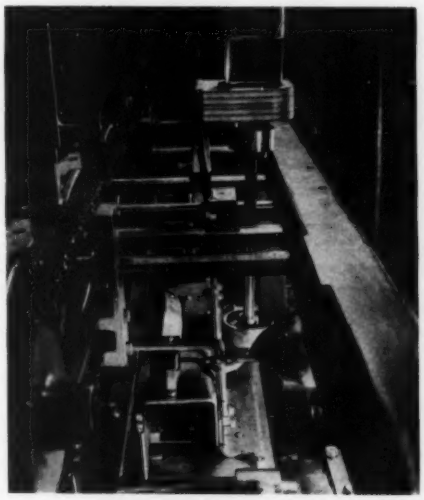
Sauer currently is using this re-engineered machine to bundle alternately the output of two 130-per-minute extract packaging lines. An extensive line of extracts is handled, packaged in five sizes of bottles ranging from $\frac{5}{8}$ oz. to 3 oz. and inserted into printed folding cartons. All are bundled with polyester film in dozen units, loaded into corrugated cases and shipped to Sauer's marketing area throughout the Southeast.

With this more efficient transparent bundling in polyester film, Sauer can point to definite savings in cost. The company estimates that its expenditure for automatic bundling is no more than for hand-filled chipboard cartons formerly used. And, when prices for polyester film are reduced, the new method will become even cheaper—and continue to do an immeasurably better job of packaging.

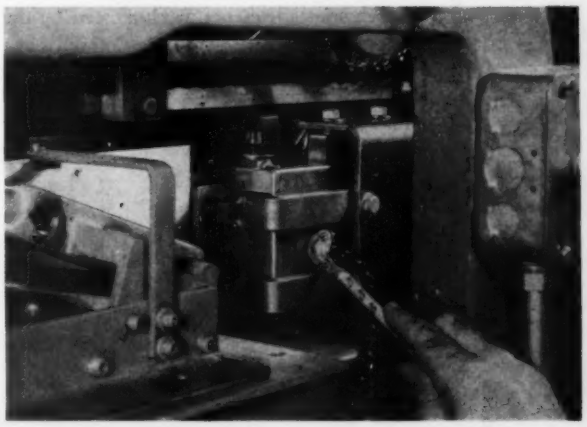
Credits: *"Mylar" polyester film by E. I. du Pont de Nemours & Co., Inc., Wilmington, Del. Automatic wrapping machine by Package Machinery Co., East Longmeadow, Mass. Static eliminators by The Simco Co., Lansdale, Pa.*



Static eliminators at three places —before measuring roll (shown), before and after cut-off knife—minimize troublesome "cling" of polyester film.



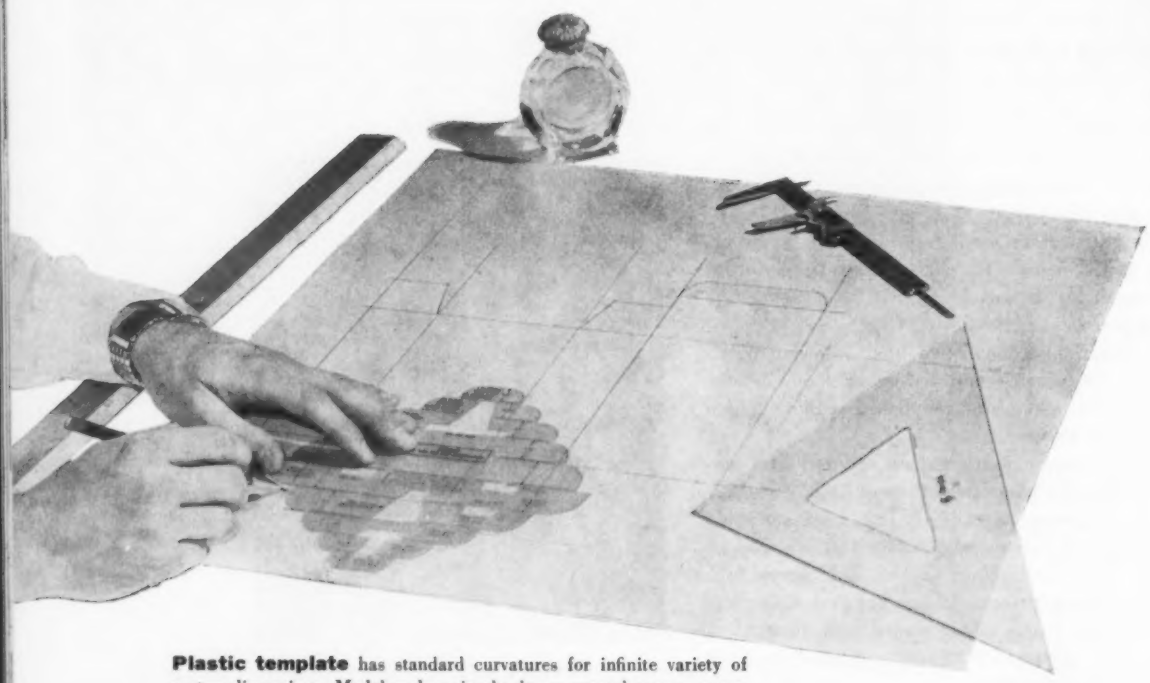
Benzyl alcohol softens the polyester film for heat sealing at relatively low temperature. From glass container at top, it flows down to tiny wick which brushes it lightly onto film just before end seal is made. Similar device feeds benzyl alcohol to other end. Glue wheel applies it to long end seam.



Redesigned heaters are mounted in a manner to minimize heat loss to other parts of wrapping machine and to keep temperature constantly at 350 deg. Photo shows one of two end-heater assemblies.

Standardizing tucks and flaps

Three folding-box users report economies in the use of a simple template system for uniform design that makes cartoning machines operate more efficiently



Plastic template has standard curvatures for infinite variety of carton dimensions. Model maker simply draws around proper curve. No need to set radii on compass or determine angles with protractor.

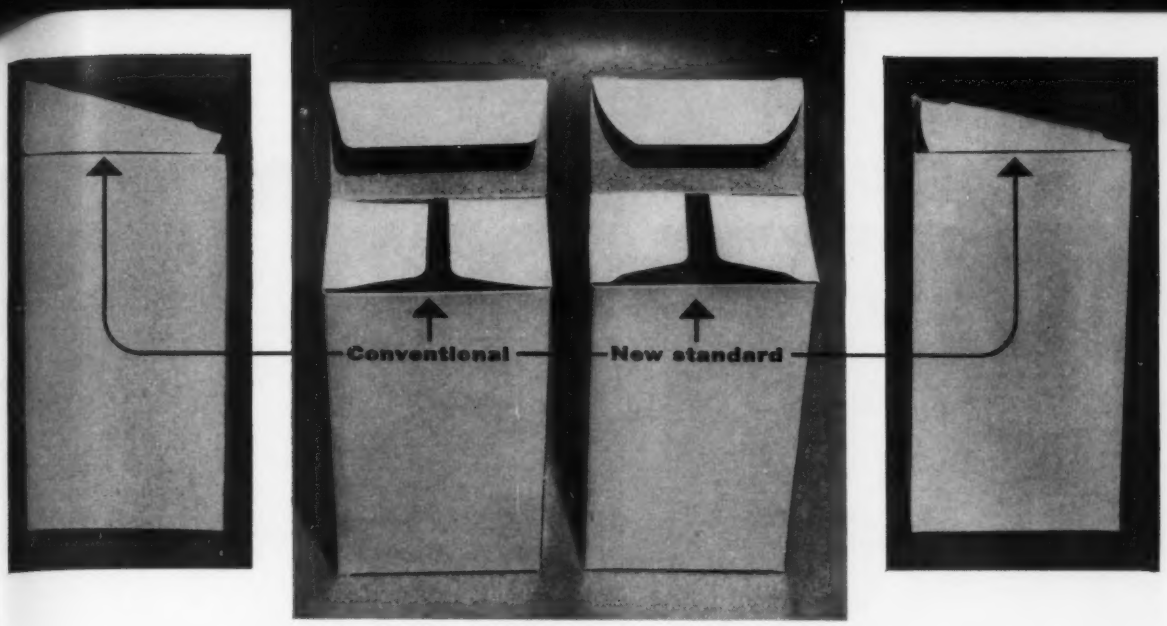
Production efficiencies and economies that eventually may be achieved by users of tuck-end folding cartons through a proposed industry-wide standardization of tuck and flap shapes are indicated by the experience of three of the many firms which have put the standardized method into practice.

Shulton, Inc., Hudson Products (a division of Block Drug Co.) and Mead Johnson & Co. are now using the new die-standardization technique recently announced after four years of research by a leading carton manufacturer and offered generally for free use.*

The objective of the method is to assure standard "bends" in die making that will eliminate the troublesome differences in shaping tucks and flaps which reportedly cause mechanical difficulties on automatic and semi-automatic cartoning equipment (as well as in some hand-packaging operations) when a manufacturer receives his cartons from more than one supplier—and sometimes even when he re-orders from the same supplier.

No extra manufacturing expense is involved in using this technique when designing and producing a new carton. Standardization is effected by using a specification sheet, which provides the correct contour of tuck and side flaps in keeping with the size of the carton. Further, a template containing the details of the specification drawing is provided the

* Unituck System, copyright The Lord Baltimore Press, Inc. See "Standard 'Bend' for Folding Boxes," MODERN PACKAGING, Feb., 1956, p. 199.



Foolproof closing claimed for new standard tucks and flaps is illustrated by close-ups of traditional contour and new uniform shaping. Greater tolerances which are allowed on the new standard are designed to prevent jamming of the tucks.

manufacturer as a working tool to be used in making hand models.

Users of the system, so far, point up advantages in (1) controlling packaging costs, (2) reducing machine stoppages and adjustments, (3) simplifying purchasing instructions, (4) improving carton closures, (5) facilitating hand packing and (6) decreasing the percentage of rejects.

Here are three user reports:

Shulton, Inc.

At Clifton, N. J., Shulton, Inc., reports a considerably reduced rate of rejects as the result of adopting the standard-specification closure flaps on cartons used on two completely different cartoning machines—one a semi-automatic model for Old Spice shaving cream in collapsible tubes, the other a fully automatic operation for Old Spice shaving lotion bottles.

Eugene Mazza, Shulton's process engineer, estimates increased production on both machines, so far, between 5 and 10%. There is less waste of time and material due to tubes dropping through the new cartons as they formerly did through the old ones. And fewer stoppages are being reported on the packaging line where tubes are being hand packed into automatically set-up cartons at a rate of 40 per minute.

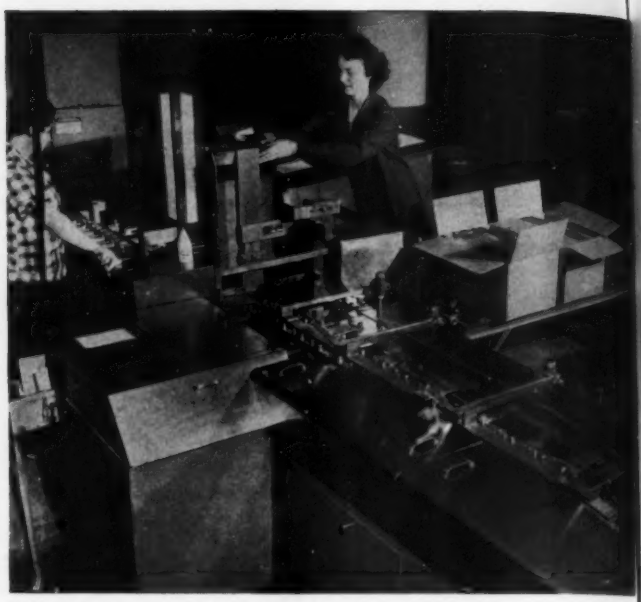
On the automatic shaving lotion line, according to Mr. Mazza, Shulton is getting far better closures on both top and bottom flaps, with a resulting decrease in spoilage. Efficiency of the cartoners, he says, also has been improved by the elimination of re-adjustments for flap-size variations. A speed of 125 cartons per minute is being maintained consistently.

Hudson Products

John J. Quigley, plant manager at Hudson Products, Jersey City, N. J., a division of Block Drug Co. that manufactures dentifrices, has adopted the standard flap method for cartons used on one auto-

Standard die pieces produce necessary number of knives, all exactly alike and all bent to correct contour of established carton dimensions.

Rejects are reduced by more securely locked standard cartons for Shulton Old Spice shaving cream tubes which tended to slip through old cartons when hand packed. Speed of carton set-up machine reportedly has been increased by elimination of re-adjustments for flap-shape variations.



5 to 10% increased production efficiency with uniform cartons is estimated for fully automatic cartoning operation on Shulton Old Spice shaving lotion, with machine running consistently at 125 cartons per minute.

matic cartoner and plans to use it soon for all the plant's cartoning operations.

"The old carton often tore, wouldn't close right and gave constant trouble on account of flaps," Mr. Quigley says. "For years we've been struggling with this problem and I'm willing to say that it's a real pleasure working with the new standardized flap. Just as soon as I can make the change, it'll be on all our cartons."

Mr. Quigley estimates increased production speeds of 14% on the automatic machine where the standard cartons are in use, with the machine running consistently at 120 per minute.

"Previously scarcely an hour went by that we did not have to stop for adjustments or some other trouble caused by closures that didn't work right," he says. "Now we're getting consistently good results and almost never turn off the machines during the working day except for employees' regular rest periods."

Stoppage eliminated for adjustment due to carton flap trouble has enabled Hudson Products to show 14% production step-up on its Polident cartoning operation by carton standardization.

Mead Johnson & Co.

An entirely different advantage of the standard specifications is described by Mead Johnson & Co., makers of nutritional and pharmaceutical products.

"Geographically situated as we are in Evansville, Ind., with respect to carton suppliers, the procurement of requested samples often takes several days," says Harland W. Walker of this company. "In the past, drawings had to be made by us and mailed to the suppliers. By the time samples were mailed back, much time had been consumed. By the use of standard specifications we can simply telephone three dimensions and have samples within two or three days."

The system

The new standardized specifications for tuck and flap contours were arrived at after an analysis [*Continued on page 204*]

The use of COLOR in transparent packaging

Here are the fundamentals of psychology and visibility that every packager ought to know when making a choice of colors and designs

By W. T. Brown and J. L. Jenemann†*

Expansion of self-service merchandising techniques has been accompanied by a growing realization that packaging decisions, including choice of colors, must necessarily be a concern of top management.

Why is color in packaging important? It is simply that consumers react emotionally to colors and transfer their sensations from the package to the product. The manufacturer may see his efforts to market a quality product wasted if the colors of his package do not strike the proper chord in the mind of the consumer.

Designers and color consultants can recommend solutions to the problem, but the manufacturer should not avoid the final decision. Thus a discussion of some of the principles of color theory and color vision as applied to packaging may be of interest.

Choosing proper colors is sometimes complicated by contradictory factors. For instance, colors are desired that draw attention to the package on the store shelf and yet will not prove an eyesore in the home.

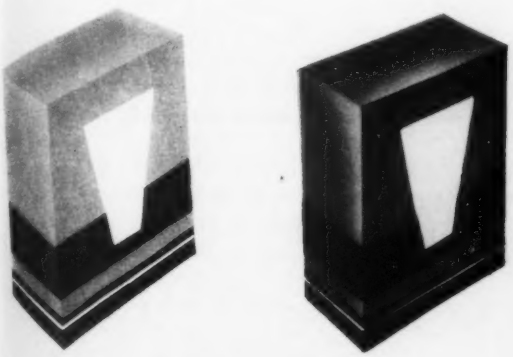
The colors on a package should in some way suggest the contents of the package. Certain hues immediately suggest foods; others toiletries. Some colors have a feminine quality; others, masculine, as shown in Fig. 1. Color also has a psychological effect. We speak of gay colors, somber colors, passionate colors, cool colors, warm colors (Fig. 2).

Then, too, there is the matter of legibility, since different color combinations have different carrying powers. Colors used by competitive brands also must be considered.

We commonly refer to colors by names like red, blue, yellow, etc., but for each of the dozen or so color names in everybody's vocabulary there are at least a dozen variations.

Actually, three of the better known color identification systems list between 400 and 900 colors. By

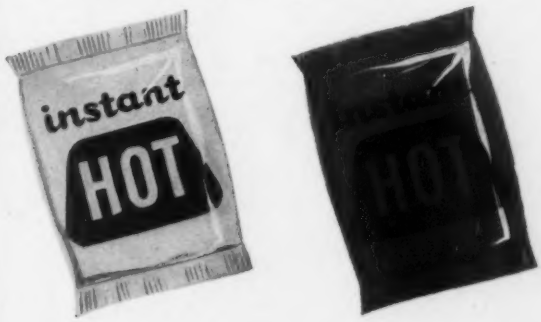
*Packaging Specialist, Sales Development & Technical Service, and †Converter Sales Promotion, Film Dept., E. I. duPont de Nemours & Co., Inc., Wilmington, Del.



1. Male or female? With the choice of colors, there's little doubt, in the illustration above, that the left-hand package contains a woman's product; the other, a man's.

ALL COLOR PLATES COURTESY DU PONT

2. Hot or cold? Cool colors of the package on the right (below) would be obviously inappropriate for a product that depends for its appeal on the fact that it is served hot.



what method are the red, blue and yellow of common usage expanded into 900 or even 400 colors? It is not difficult to understand if we review briefly the theory of color.

Theory of color

The human eye perceives three distinct qualities in color: hue, value and intensity. Hue is that quality of color which may be described by its common name: red, orange, etc. Because, in addition to hues, the eye perceives white, black and degrees of gray, the term "value" is used to indicate lightness or darkness of a color. Pink, for instance, is a light value or tint of the red hue; brown is a shade or dark value of orange. For every hue there are eight or nine readily recognized values ranging from light to dark. Intensity is that quality of color which we recognize as brightness or dullness. Since each value of each hue can have several intensities —at least two and as many as 14—it is easy to understand why there are hundreds of colors listed.

However, it is not only the hue which makes a package color "right," but also the value of intensity. Green, for example, might be used successfully in different values on a carton overwrap of frozen peas and also on packages of candy mints (Fig. 3).

The three qualities of color are particularly important when part or all of the package is transparent. Immediately, we have a predetermined color —the product color—as a part of the total color scheme. In the case of the completely visible package the product color must be not only the starting point, but also must be considered at every stage of the package's design.

The product color is rarely, if ever, a flat, one-toned hue as is a coat of ink on boxboard. Suppose our product is pretzels. If we examine a transparent bag of pretzels we realize that a single pretzel is not simply brown as we may have thought. Actually there are light edges and dark edges. There are the white dots of salt and shadows cast by other pretzels.

Our first problem, then, in choosing a color for the transparent bag of pretzels is one of value and intensity, not of hue. We must be sure that the color is either light, bright, dark or dull enough to be visible and, in the case of type, legible against the multicolored background of pretzels.

Two factors may govern the final choice of color. Is there a color demanded to establish brand recognition? Secondly, a food product is enhanced by an appetizing color. Other factors may influence the final decision as they do in non-visible packages: the size of the package; the type of retail store and kind of display; the price, the age, sex and economic status of the consumer, to mention a few.

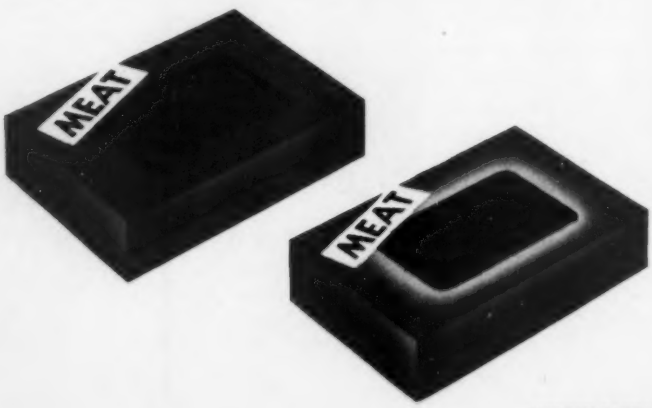
3. Different values of the same green hue can be properly used for different purposes.

The window package

There are times when the package permits only a partial view of the product in a so-called window area. The window may be a die-cut opening in a carton, or it may be formed on transparent material by deliberately enclosing all but a definite area with opaque color.

The window type of transparency makes it easier

4. White area on a red meat package focuses attention on the product and at the same time eliminates any clash between two strong colors.



to insure legibility of type against background color. However, care must be taken to preserve the true color identity of the product and to keep it a major element in the design.

A package of frozen meat offers a suitable example. The brand color of the packer of this meat is a brilliant orange. Because of the attention value of this orange, it was desired to use it as a background color on the package. The contrast of orange ink with meat color, however, did not enhance the appearance of the meat. Orange made the red meat appear purplish.

A second difficulty which occurs whenever two strong colors are brought together is illustrated in this same example. To look at the product in the window was physically and literally hard to do. There was no dominance of one color and the eye was irritated by being pulled back and forth between two forces.

Both of these difficulties were overcome by introducing a white halo around the window. The white was gradually merged into the orange. Both the vibration and unfavorable contrast were eliminated by providing a neutral barrier between the two color areas. The solid white edge around the product emphasizes that spot in the design, thereby making the product the center of interest (Fig. 4).

The fact that the orange of the package affected and unfavorably altered the red of the meat brings us to another major consideration in selecting colors: Colors in combination look different than when seen alone. One aspect of this condition is explainable in the phenomenon of vision called "after-image." After looking at one color for a time, the eye will "see" the opposite of that color (Fig. 5). Orange calls forth blue; red has a green after-image.

Value and intensity are also affected in combination. Gray looks lighter when seen on black than it does when seen on white, and a dull color looks even duller against a bright backdrop than it does against another grayed tone. These facts have particular significance in transparent packaging.

Mechanics of vision

There is another reaction to color which has its origin in the mechanics of vision. The human eye focuses differently for different hues. There is an actual change in the size and shape of the lens of the eye as it moves from blue, for example, to red. The lens grows convex to focus red, yellow and orange behind the retina, making these colors seem nearer and larger. For blue, green and violet, the lens flattens out, with the opposite effect of size and distance (Fig. 6).

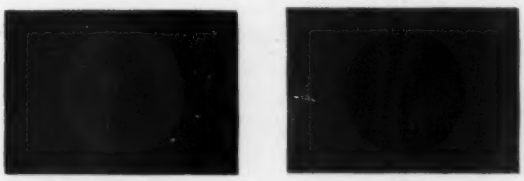
The sensations thus aroused can be exciting and

5. Phenomenon of after-image affects color reaction. Look at the orange circle for 20 seconds, then at small black dot; after-image of the orange will appear.

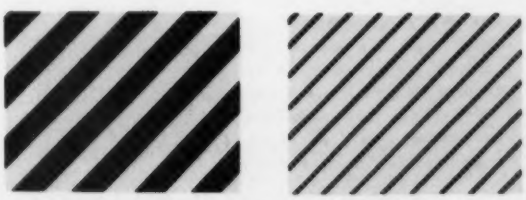
desirable in package design if they are controlled. If they are carried to extremes, they can be confusing to a potential purchaser.

The dead-end marker on the road has not been painted with evenly spaced black and yellow stripes by chance. Those stripes by their strong, equal-sized contrasts of dark and light cause a never-ending rhythmic movement within the eye, giving the brain a muscular, as well as a visual, sensation. It is a double-barreled call to attention and, for its purpose, serves admirably. The package, however, in addition to drawing attention must invite closer examination.

Thus, we can completely alter the effect of the road marker and adapt it to the package by making the yellow stripes broad and the black stripes narrow (Fig. 7). The surface so treated, while still



6. Illusion of protruding and receding colors. The orange disk seems to be on top of the blue rectangle, while the blue disk seems to appear through a hole in the orange rectangle.



7. Strong contrast of colors must fit the purpose. Equal-width stripes of yellow and black on a road marker compel attention, but repel close examination. For a package, wanting close attention, the contrast would be subdued as at right.

8. Optical trick in size. Which triangle looks larger? They are identical in size, but dark, dull colors appear smaller than light, bright colors.

exciting, is much more restful and appealing when the strong color contrast is subdued.

Generally speaking, the distribution of color, like the entire package design, depends on the effect desired. Apparent size, for example, can be altered by color. Bright, light colors make packages look bigger than dark, dull colors (Fig. 8).

There is good reason for limiting the range of colors for packages. Most people desire clear, pure color, so changes in hues should be definite and marked (Fig. 9). And the color vocabulary of the average person is rather meager. We tend to group scarlet, crimson, vermillion, for instance, under the single label, "red" (Fig. 10). We qualify the common hue name with light, bright or dull, but beyond this we cannot accurately describe a color.

This inability consciously or unconsciously to identify certain colors verbally greatly reduces our power to remember those colors. A good package seeks to establish remembrance for a particular brand of product. The use of "off" colors makes the package less memorable.

Another factor which influences the range of package colors is the combinations of color people prefer. According to academic theories of harmonious combinations of colors, they are best grouped when they are close together on the color wheel like yellow-orange, yellow and yellow-green; or when they are opposite on the color wheel like blue-green and red-orange.

9. Changes in spectrum hues must be definite, as most people prefer "pure" colors. Pure orange appears at top. Orange with a little blue added (center) appears muddy; adding more blue creates a pure brown, which is more attractive.

10. Varying shades in a color family are grouped together by average consumer because of his limited color vocabulary. These three variations, for instance, would all be accepted as "red" by consumers.

Summary

Summarizing this discussion of color in packaging, we believe two points are of greatest importance:

1. Selection of package colors should be based on a number of factors, such as:
   a. Type of product.
   b. Method of retailing
   c. Type of consumer.
   d. Psychological effect of color.
   e. Type of package.
2. In the case of the transparent package it is essential to choose colors in relation to the color and texture of the packaged product so that they:
   a. Enhance the product's appearance.
   b. Make it "easy" for the consumer to see the product.
   c. Maintain the product as the center of interest in the total design.
   d. Insure legible descriptive and sales copy.

The number and complexity of these factors suggests one final thought:

There is no room for personal whims in developing a package color scheme. In today's markets color is one of the elements that make a package a good or a poor salesman. With so much at stake, decisions on package colors are best based on a knowledge of color, an understanding of human psychology, familiarity with merchandising and sound aesthetic judgment.

Window shades in vinyl

Transparent film wrap
that lets shopper see through
ups sales for Clopay 40% in 25 days,
while greatly reducing
returns and damage from handling

Colorful array in mass display spurs impulse purchases. Customers can make their own selections. Wrapper tearing to see is a thing of the past.

The kind of creative package thinking it takes to solve today's retail selling problems is illustrated by a new transparent tubular wrap of polyvinyl chloride film being used for Clopay window shades. It is an excellent example, also, of the still-unexploited possibilities of vinyl film as a long-life transparent wrap.

Reportedly, this new package is upping window-shade sales for the Clopay Corp., Cincinnati, as much as 40% in specific instances. The use of vinyl film, with its good aging properties plus full transparency, is providing the longer shelf life demanded for products of this type. The new package was a Silver Award winner in the household and housewares division of the 1956 *Variety Store Merchandiser* package competition.

Clopay is one of the oldest makers of window shades. While the products have been improved through the years, a 20-year-old method of wrapping shades in opaque kraft paper offered no way for customers to see what the shades looked like without tearing the paper wrapping. If the shades had to be cut at the retail store to meet customer requirements, as they often do, the paper had to be torn off, with the nuisance of rewrapping.

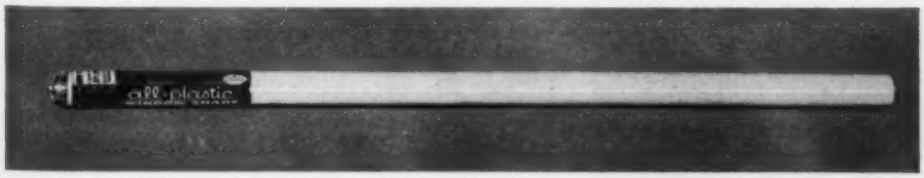
Aware of these problems, Clopay decided it was time to redesign the window-shade packaging. It selected a clear transparent polyvinyl chloride film, extruded in seamless tubular form with heat-sealable ends to allow for easy packaging without waste and at high speed in one continuous production operation.

In the new transparent packages with color-coded labels, Clopay window shades are completely visible to shoppers, who can make their own selection of colors and textures from open display.

Wrapper tearing is a thing of the past. Sales girls do not even have to remove the transparent wrapper to cut the shades. They simply cut the shade to

[*Continued on page 220*]

Tubular package of extruded vinyl film is sealed at both ends. Shades are simply cut to required length in the package. Color-coded labels aid the shopper.



Photoflash batteries in the spotlight

A design symbol that is instantly recognizable and adapted to all sizes of packages has been developed for Eveready Photoflash Batteries, made by National Carbon Co., division of Union Carbide & Carbon Corp. Eveready now is using as an eye catcher on any type of package a jagged-edged white oval simulating the flash of a photoflash bulb. Centered in this spotlight is the familiar Eveready logotype with its "cat with nine lives."

This symbol appears on the packages recently introduced for a number of different batteries for photoflash equipment, as well as on the batteries themselves. Contrasting with the gleaming white of the trademark are bright bands of red and blue, Eveready's theme colors. These are used on small folding cartons for dozen packs of the three smaller sizes of batteries and on the paperboard or metal casings of the batteries themselves. Tops of the folding cartons are designed to be folded back to display their contents on counter tops.

Credits: *Design program by Robert G. Neubauer, Inc., 234 Greenfield St., Bridgeport 5, Conn.*

Design Histories

Cottage cheese in polyethylene bags

Cottage cheese seems to appear in more different kinds of packages than does any other food product. Latest to come on the market is a cost-saving 16-oz. polyethylene film bag, used by Adams Dairy Co. Color printed with brand name and sales message, the bags are closed at the neck with pressure-sensitive tape. Filling is by means of a funnel, through which measured scoops of the dairy's dry, low-fat-curd cottage cheese are poured.

Polyethylene bags, says the dairy, retain moisture, withstand refrigeration well and help to keep the cheese fresh all the way to the user's table. Opened bags may be tightly reclosed for storage in the refrigerator where brand name and sales message are constant reminders to the consumer. Costs are estimated to be less than two cents per bag, which is reported to be about half that of a conventional 12-oz. paper carton.

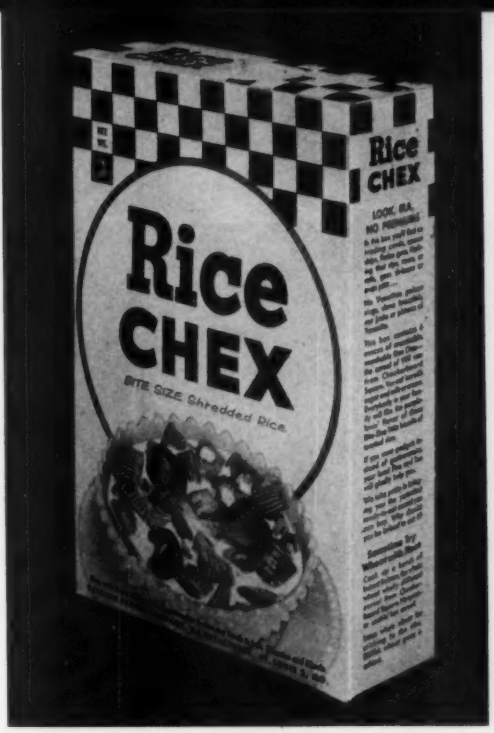
Credits: *Bags by Dura-Lee Corp., 908 Broadway, Kansas City, Mo., using polyethylene by Bakelite Co., Div. Union Carbide & Carbon Corp., 30 E. 42 St., New York.*

Premiums bite the dust

Reversing completely one current trend in cereal packaging, Ralston Purina Co. has dropped all premiums from the surfaces of its Rice Chex and Wheat Chex cartons. Aiming an appeal at the mothers of children who have been harassed by their offspring's demand for bigger and better cereal-carton premiums, Ralston headlines its new side panels, "Look, Ma, no premiums." Copy goes on to say, "In this box you'll find no trading cards, space ships, fission guns. Nothing that rips, roars or rolls, goes sh-boom or even pttt. No Venetian poison rings, slave bracelets, car jacks or pictures of Yosemite . . . If you want gadgets instead of gastronomics, your local five and ten will gladly help you. We take pride in bringing you the yummiest ready-to-eat cereal you can buy. Why should you be bribed to eat it?"

Ralston has been a long-time user of premiums, but now feels that advertising should emphasize the quality and flavor of its products. Its advertising agency, Guild, Bascom & Bonfigli, Inc., conceived the new approach.

Credit: *Cartons by Michigan Carton Co., Battle Creek, Mich.*



Design Histories

Man-appeal packages for Stopette

As part of its campaign to win new users for Mr. Stopette, the masculine version of the first squeeze-bottle deodorant, Jules Montenier, Inc., has introduced an unusual paperboard boot to hold the polyethylene bottle used for the product. Designed to look like a man clasping the Mr. Stopette package to his chest, the boot encloses the bottle on three sides and has a separate paper strip going around the front of the bottle. The strip is printed to represent a pair of arms and clasped hands.

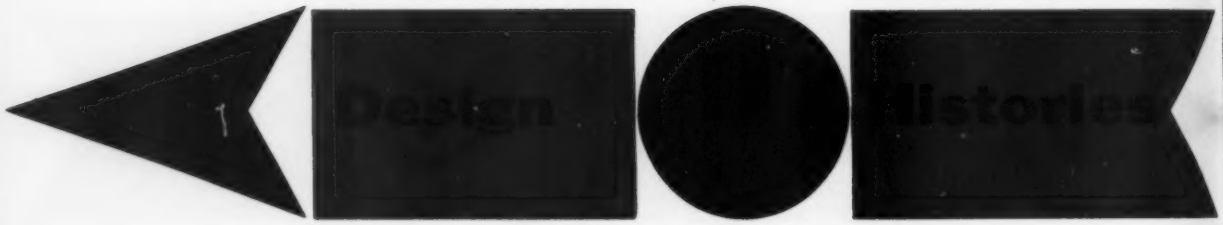
An eye-catching counter display piece accompanying the new packages has room for six units. It is made of paperboard printed in a grained-wood pattern that is thought to have masculine appeal. At the top of the display, the male figure used on the boots is repeated.

Credits: *Polyethylene bottles by Royal Mfg. Co., Prescott, Ariz. Urea caps by Formold Plastics, Inc., Blue Island, Ill., and Armstrong Cork Co., Lancaster, Pa. Polyethylene spray heads by Formold Plastics. Unit packages and counter displays by Green Bay Box Co., Green Bay, Wis.*

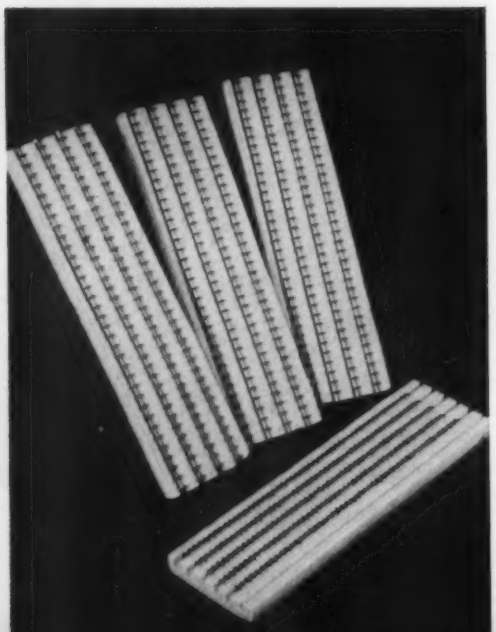
Package that 'talks'

A folding carton for U. S. Rubber's children's Fire Fighter boots doubles as a toy fire-alarm box, complete with pull handle and a plastic tape attached to the bottom that calls out "Fire! Fire!" when it is scratched with a fingernail. Aimed at encouraging children to follow fire safety rules, the carton has a space on one end for filling in the telephone number of the nearest fire department, together with rules telling the child how to report a fire and what to do in case he is caught in one. Schools are actually using the boxes for fire-protection education. The plastic tape at the bottom, which is about 2 ft. long, contains an actual electrical transcription of a voice calling out the fire warning, with the sound having been molded into the tape in the form of tiny ridges. When a fingernail passes quickly over the ridges, the carton vibrates and acts as a resonance chamber.

Credits: *Package design by Robert E. Van Rosen, 34 W. 58 St., New York 19. Folding cartons by Shuttleworth Carton Co., 474 W. Broadway, New York. "Talkie Tapes" by Talking Devices Co., 4447 Irving Park Rd., Chicago 41.*



Plastic foam lines up rows of metal fasteners



Rivet-type fasteners, such as those used by the aviation industry, must be packaged so that they will be ready for immediate loading into a rivet gun. At the same time, they must be protected from damage in storage. Aviation Developments, Inc., has solved this double problem with these inserts fabricated of polystyrene foam, which hold the fasteners securely inside an outer folding carton. The light-weight, rigid plastic gives good protection to the rivet fasteners and adds display value to the product.

A single piece of foamed plastic is used. Four long lengthwise slots each hold a row of fasteners and a series of smaller slots cross at right angles, into which individual fasteners are placed. Each of the long rows has space for 34 fasteners, which are thus lined up for easy loading into a rivet gun by means of a mandrel.

Credits: *Packages by Kennedy Industries, Inc., 4447 Alger, Los Angeles, using "Styrofoam" polystyrene foam by Dow Chemical Co., Midland, Mich.*

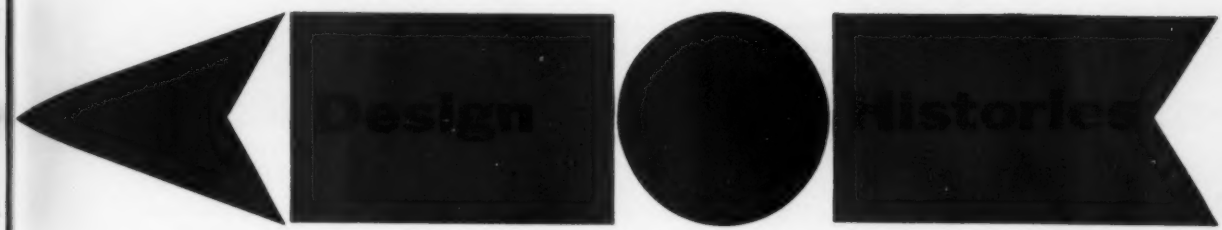
Corrugated elegance for choice fruit

This large decorative carton of unusual construction has been adopted by A. Reich & Sons for shipping and promoting choice fruits for eating. Double thicknesses of corrugated board protect the fruit on all four sides and self-locking closures on both top and bottom permit set-up of both halves of the box without the use of stitches, glue or staples. Roughly cubical in shape, the carton is designed to hold from 24 to 27 lbs. of fruit when packed for shipment.

The top half of the carton, which is fully telescoping, is printed in red and black on white-surfaced board, with outline drawings of the various kinds of fruit inside being featured in the design. Hand holes are die-cut on either side for ease in carrying.

The bottom section of the two-piece carton, which is printed in black with gold trim, also has similar hand holes and features as part of the design unusual die-cut openings through which actual pieces of fruit may be seen. The top edge is cut in a scalloped pattern.

Credit: *Cartons by Hinde & Dauch, Sandusky, Ohio.*



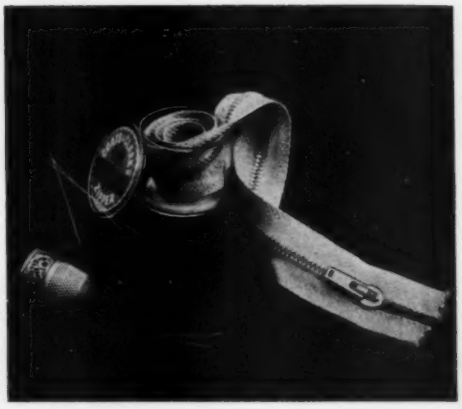
Foil in sheets packaged like facial tissues

A new convenience feature for the housewife has been introduced by Reynolds Metals Co. Instead of being packaged in the conventional roll form, Reynolds Wrap Interfolded Sheets are now supplied in pre-cut rectangles measuring 12 by 10¾ in. in size. Foil sheets are stipple-embossed so that they will not cling to each other and are interfolded similarly to facial tissues, so that they will pull up one after another, ready for use. They are recommended for a wide range of household applications.

Reynolds is packaging the new sheets in flat rectangular folding cartons, each of which has a broad perforated slot in the top which the user punches out. Two sizes are available, a pack of 50 sheets for consumer sales in food stores and an institutional pack of 200 sheets sold through restaurant supply houses.

Credits: *Cartons by Robert Gair Co., 155 E. 44 St., New York 17. Sheets folded on interfolder by Paper Converting Machine Co., Green Bay, Wis.*

Notions



Stand-out innovation of the year in notion packaging techniques is the molded polystyrene container for Coats & Clark zippers. Self-dispensing selector displays in which the packages—no bigger than spools of thread—roll down chutes holding 50% more zippers per linear foot than in same space with paper envelopes. Company says thousands of stores have switched to Coats & Clark zippers because of the convenient new packages.

Notion and novelty departments are reportedly among the best money makers in retail stores from the standpoint of gross profit margin. And any day of the year they offer one of the best packaging shows, containing almost every conceivable packaging idea created to speed the self selection and sale of the multitude of small items classified in this category.

The wide variety of merchandise handled here in itself presents such unlimited opportunity for manufacturers seeking new outlets for products properly packaged that these counters deserve constant scrutiny by packagers of almost every kind of small non-food item sold in open display.

The question: What is a notion? is about as esoteric as: What is a novelty? In retail trade, a notion or novelty, apparently, may be any one of 4,000 or 5,000 items which a notion buyer is able to pirate for this department. The impressive total today—on the basis of styles, colors and sizes in just this one department—rivals the total number of items handled in the average food store.

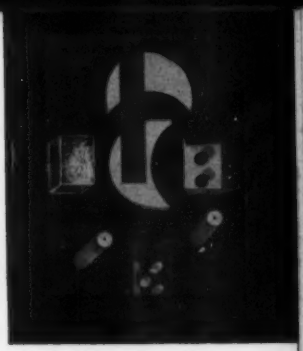
The very application of the word "notion" in this sense has changed little from its early Yankee connotation signifying "miscellaneous small articles of trade," such as tinware, thread, buttons, pins, combs and ribbons, usually sold by itinerant peddlars.

By their very nature, standard notion items—pins, needles, buttons, shoe laces—demanded packaging almost from the beginning of their commercial existence, if for no other reason than for proper handling of these small items in convenient selling units. The paper of pins, the paper fold of needles, the banded pair of shoe laces, the card of buttons —all of these packages go back further than anybody can remember.

Nor is self selection particularly new in this field. Because of the small average unit sale and the vast number of sizes and colors, retailers became aware years ago of the operating economy of offering such displays in open display to encourage the shopper to help herself. The selling of notions on variety store counters further pointed up the advantages of packaging for self selection in this field.

Notion and Novelty Review estimates total sales in this field at around $450,000,000 annually and, while notions and novelties account for only about 1.7% of total department store sales, the National

and novelties



Industry Survey

This miscellany of merchandise is one of the biggest money makers in any store and a gold mine of information for the packager of any hard-to-handle item

Retail Dry Goods Assn. places them right up with stationery as one of the highest profit departments, with steady increases year after year.

This growth is due partly to the booming market for sewing aids, bought by 52,000,000 women and girls who now sew at home, and partly because a notion department is no longer merely a place to buy pins and needles, buttons and thread.

In its own right, the modern notion department has become a veritable variety store selling hair goods, household items, moth goods, cutlery, sanitary supplies, travel aids, closet accessories, rainwear, paper goods and an infinite number of gadgets, knick-knacks and gifts. Sewing supplies are far different today, with such accessories as zippers and all the prefabricated items including bias bindings, tapes, beltings, belt buckles, lingerie tapes, replacement pockets, darning patches, sequins and beads, in addition to needle-threading devices, eyelet makers and goodness knows what else. And all are packaged for easier stock taking, self selection and impulse purchase.

There is probably no other field where more variety of packaging is used or where more packaging ingenuity is expressed to attract first the store's notion buyer, then the shopper.

With the average notion transaction estimated at 59 cents, buyers are attracted to almost any item in this category that is packaged to increase the number of transactions handled per salesperson per

What is a notion? Any one of 4,000 or 5,000 items a notion buyer is able to pirate for this department. Carding is one of the effective ways to present all manner of small items. Merchandise may be attached to cards by staples, tapes, die-cut slots, vacuum-formed pieces. Transparent films are widely used for packaging notions, as are window cartons, plastic boxes and almost every other package form.

day and to simplify the difficult inventory problem. Shoppers are often induced to make unplanned purchases simply by the appeal of a package that catches the eye when shopping for something else.

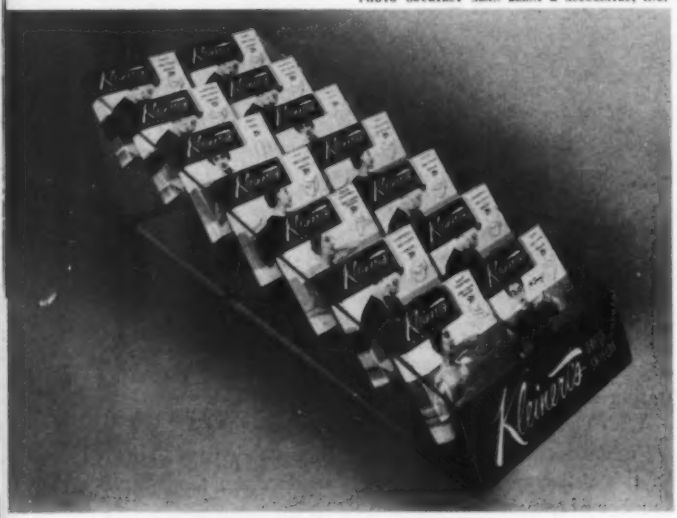
A visit to any large notion department today is a revelation in packaging progress, with striking examples of almost every package form developed to meet the requirements of the widely diversified products sold there in modern store fixturing.

Notions manufacturers were among the first to use the merchandise card to which may be attached all manner of small items and they are still among the largest users of this simple form of packaging. Buttons are almost universally carded in popular selling quantities arranged for self selection in convenient new fixturing. Improvements are in the methods of securing items to the cards, such as ingenious die cutting, pressure-sensitive tapes and staples. During the past decade semi-automatic staplers have come into almost general use for attaching buttons as well as numerous other items to cards.

Rapidly appearing on notions counters are examples of vacuum-formed plastic packaging for securing to cards belt-buckle parts, sewing-machine needles and small tools and accessories. Manufacturers have discovered the sturdiness of this kind of packaging as well as the attractive appearance that results from full visibility of the product.

Transparent flexible film wraps and bags of cellophane, polyethylene and other materials are used extensively to protect all kinds of notions items from shopwear and to keep assortments of small items together as units. All offer full product visibility and many are excellent examples of informative packaging through the use of colorful printing and labeling that provides brand identity and complete directions for use. With modern wrapping, bag-making and labeling equipment, these packages

PHOTO COURTESY ALAN BERNI & ASSOCIATES, INC.



Space saving is a definite requirement on notion counters. This angled metal rack for Kleinert dress-shield packages displays more than four times the number of dress shields in the same area as former flat placement on the counter. Informative new packages speed consumer selection.

PHOTO COURTESY OLIN FILM DIV.

Complete information on every package is essential for self selection. Printed cellophane carries all detail about Magla Silicone ironing-board cover. Product is visible through clear, unprinted area.

Ingenious constructions often create impulse sales. Polystyrene needle container is equipped with dial mechanism for dispensing just one needle of a given size at a time. Package contains individual compartments for six different needle sizes.

can be produced at high speeds and at low cost.

Window cartons are much in evidence, as are many colorfully printed cartons for household items, sanitary goods, paper goods, etc., particularly where large printed areas for brand identification, selling points and directions have become essential in the absence of clerk service.

There are numerous applications of set-up boxes for polishing cloths, shelf edgings, gift put-ups of shoe pockets, clothes hangers, paper towels and napkins.

The old-fashioned paper of pins is still there, but pins are now being seen more often put up loose in set-up paper boxes or transparent plastic boxes—convenient for the user and cost saving for the manufacturer, who does not have to incur the expense of attaching the pins to paper strips.

Among the needle packages are convenient new transparent vacuum-formed blister packs. And in one New York department store there is an ingenious polystyrene container for needles, from Germany, circular in shape and equipped with a dial mechanism for positioning an opening over different-sized needles to dispense just one needle at a time.

Colorfully lithographed metal packaging is used for numerous brands of moth products, some of the containers equipped with convenient hook devices for hanging the product in a closet. Among the shoe preparations are not only metal containers for polishes, but examples of glass and collapsible tubes for shoe cleaners and polishes. Still on the market is the cleverly designed Griffin shoe-polish carton with perforations for converting it into a non-tip base for the bottled contents when the product is in use.*

There are many opportunities for the combination package in notion departments to encourage the multiple-unit sale. Handy vinyl travel kits are put up with assortments of polyethylene bottles, folding garment hangers, plastic lingerie and toilet cases. Shoeshine kits are put up with polishes, brushes and polishing cloths. Sewing kits have been popular sellers for years. There is a trend also toward combining sets of decorative paper napkins and towels, or different-sized paper doilies in set-up boxes or envelopes. Yarn, crochet thread and other do-it-yourself put-ups contain quantities and directions for making specific popular items. Baby accessories in these departments also offer profitable possibilities for combination selling.

A revolutionary development of the past year was the introduction by the firm of Coats & Clark of a round molded polystyrene container† for zippers—a complete departure from customary packaging of zippers in narrow flat paper packages. The new packages, scarcely bigger than a spool of thread, permit shoppers to see all colors and styles of zippers at a glance in self-selector displays designed to hold 50% more zippers per linear foot than zippers packaged in paper envelopes.

The fixtures supplied by Coats & Clark are stocked from the rear and the packages roll down by gravity in tracks as each is removed from the front, [*Continued on page 222*]

*See "Bottle Stand Carton," Modern Packaging, Sept., 1946, p. 112.
†See "Zippers in Styrene," Modern Packaging, Sept., 1955, p. 133.

PHOTO COURTESY BOSTITCH

Wire stitchers attach 7½ million buttons to cards per year at Freitag Co., New York—five times faster than hand-sewing method formerly used. Company operates 25 of these machines. The buttons are wire stitched individually, don't come loose as they did with sewing if the thread broke and released all buttons on the card.

PHOTO COURTESY WARNER BROS. AND IRA ELPRIN

Colorful appeal is given to Seamless Rubber Co.'s bathing caps individually packaged in formed transparent acetate boxes that give full visibility to merchandise in convenient display unit. Boxes are printed in yellow and blue.

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Modern Packaging Pageant

1 Dimco-Gray Co.'s telescopic corrugated box for shipping its outdoor shuffleboard sets also serves as a point-of-sale display. Inner die-cut trays hold disks in position and keep cues separated. Box, Gaylord Container Corp., Div. of Crown Zellerbach Corp., St. Louis, Mo.

2 Eye-appealing, metal-end fibreboard canisters have replaced former plain corrugated boxes for DuPont's Seismo-Writ photo recording paper, used in geophysical exploration. Design, Royal Dadmun & Associates, Baltimore, Md. Canister, Cleveland Container Co., Cleveland, Ohio.

3 Realistic reproduction by means of four-color flexographic printing on cellophane was the designer's aim in creating this cartoon-type figure and realistic cracker illustration for Modern Biscuit Co.'s new 10-oz. package for chocolate covered graham crackers. Design, George Reiner, New York. Wrap printed by Pacquet Corp., Hoboken, N. J., using DuPont cellophane.

4 Phoenix Candy Co. reports a marked increase in sales of its English Style Toffee with the introduction of three-color, rotogravure-printed bags made of single-wound, 100-gauge saran film. This new-type, low-cost bag has a luxury appearance. Bags, Printon Corp., New York, using Dow saran film.

5 Bold vertical lettering on cartons and tubes of Sun n Bug insect repellent cream by Silicote Corp. is designed for quick identity in self-service selling. Design, Richard Max Franz, Milwaukee. Cartons,

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Modern Packaging Pageant

Robert Gair Co., Inc., New York. Tubes, Sheffield Tube Corp., New London, Conn.

6 Abbott Laboratories' physicians' sample of Placidyl, a new non-barbiturate hypnotic, is packaged to tie in with the nature of the product. The folding box opens into a miniature bed, complete with slumbering occupant. Artwork, John Docimo and Bert Ray Studios, Chicago. Box, W. C. Ritchie & Co., Chicago, subsidiary of Stone Container Corp.

7 Bottom flaps of these colorful new half-gallon ice-cream cartons fold together in one movement for faster loading and easier handling. Design carries out Goldenrod Ice Cream Co.'s Home Town family name on all four main panels. Cartons, Container Corp. of America, Chicago.

8 Six Wilson golf balls in a wrought-iron letter or napkin holder are gift packaged in a two-piece folding box. Tray is die-cut, scored and folded to secure holder in place. Box, Frederick A. Krause Associates, Inc., Frenchtown, N. J.

9 A drawstring polyethylene bag, brightly printed in three colors, holds candy-striped children's blocks made by the Southland Mfg. Co. Hem is sealed on the inside to eliminate pull-out. Bags, Chase Bag Co., Chicago.

10 Heat-sealed, laminated glassine pouches protect individual servings of Royal Instant Cocoa from moisture penetration and guard against loss of flavor and aroma. Packets are handy for restaurant use in display carton. Pouches assembled and

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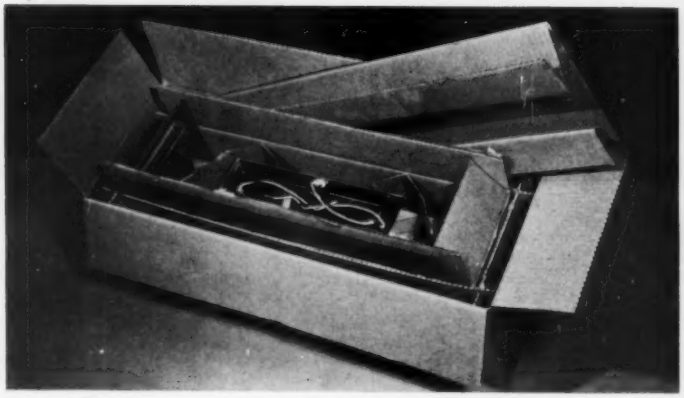

Modern Packaging Pageant

filled by DuMont Enterprises, Inc., Englewood, N.J. Carton, William W. Fitzhugh, Inc., New York. Design, Paul Straher, New York.

11 Colorfully printed cellophane overwraps for Amigo bananas are reported to increase product protection and shelf life and to boost sales. Face of wrap features a tropical scene; back gives recipes and instructions on types of bananas to buy for different needs. Wrap, Milprint, Inc., Milwaukee.

12 A transparent cellophane bag for "Mothall," a tubular, open-work polystyrene ring containing colored mothballs, allows product visibility and confines odor of the mothballs. A printed card insert and ribbon tie complete package. Cellophane, British Cellophane, Ltd., London, England.

13 Aim of the sleek new design for Johnson's Jubilee Kitchen Wax is to suggest pleasant use of the product. Design, Frank Gianninoto & Associates, Inc., New York. Bottle, Owens-Illinois Glass Co., Toledo. Four-color foil label, Lustour Corp., Clayton, Mo.

14 Lavender, yellow and dark blue colors and cameo trademark provide feminine appeal for Lady Graham Mixed Nuts. Instructions on bottom of cellophane wrap show how to open package at one end, slide tray partly out, then replace it to keep nuts fresh. Wrap, Dobeckmun Co., Cleveland.

15 This specially constructed shipping container for De-Val Mfg. Co.'s two-part glass and metal lighting fixture consists of an inner and an outer container with several fitted inserts to "float" the glass inside

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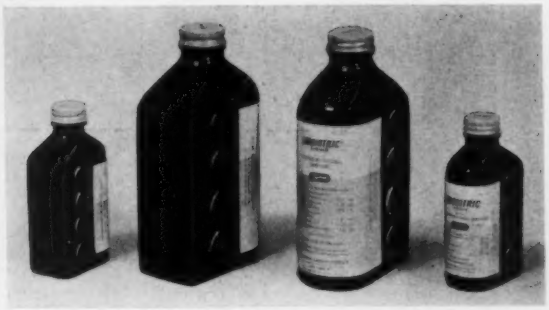

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Modern Packaging Pageant

the package. Container, Pennsylvania Box Div., Robert Gair Co., Inc., New York.

16 Feminine elegance is the keynote of set-up box for Lady Sunbeam Shavemaster. Azure velvet hinged tray matches flint cover paper which is gold-leaf stamped. Under tray is storage compartment for electric cord. Box, W. C. Ritchie & Co., subsidiary of Stone Container Corp., Chicago.

17 Private-mold glass bottles, introduced for Ayerst Laboratories' Mediatric Liquid, will soon be adopted for all the company's liquid oral specialty products. End-panel labels save shelf space. Bottles, Brockway Glass Co., Inc., Brockway, Pa. Closures, Ferdinand Gutmann & Co., Brooklyn. Labels, Canterbury Printing Co., New York.

18 Sweater form of the back piece of the display for CKC cold-water soap for knitwear conveys at a glance the product's use. Individual boxes hold 12 packets. Design, Gerald Stahl, New York. Cartons, Paramount Carton Co., Arverne, N. Y. Packets, Speedmaster Packaging Corp., New York.

19 Colorfully lithographed metal containers were selected as the first consumer pack for Goldman Foods' fresh frozen Wonderland Cherries, formerly sold only in bulk and now being marketed in food stores. Can, American Can Co., New York.

20 Superior Honey Co. is believed to be the first major honey packer to use a polyethylene squeeze bottle. The dispensing container holds 8 oz. Bottle, Millsplastic Div., Continental Can Co., New York.

Monogram trademark brings the colorful line into a quickly recognizable family. Each package carries full-color vignette of cookies it contains, enhanced by identifying rich-hued background. Use of gold bronze heightens quality effect.

ELEGANCE IN COOKIES

Pepperidge Farm spares nothing in appearance and protection to give a dramatic package setting to its new line of cookies baked to a royal Belgian recipe

The trend to greater elegance in packaging as a means of distinction among the increasing number of premium-quality food lines reaching the market is seen clearly in the series of packages for a new line of luxury cookies being introduced by Pepperidge Farm, Inc., Norwalk, Conn.

The de luxe treatment of these packages—with their five-color and gold-printed, gloss-coated, foil-laminated cartons; saran-coated cellophane wraps; interior corrugated waxed paper liners and cups, and printed cellophane inserts—is a sharp contrast to the simple home-kitchen look Mr. and Mrs. Henry Rudkin, owners of Pepperidge Farm, have always maintained for their quality line of bread and rolls.

The cookies have a de luxe background. They are baked from recipes obtained from Delacre, court baker to the royal house of Belgium. The cookies are being produced in Pepperidge Farm's Downingtown, Pa., plant after extensive negotiations in Europe. Even special-type ovens used for the cookies by the Brussels firm have been imported to the Pennsylvania plant, where production, packaging and marketing are being handled independently of other Pepperidge Farm products.

The quality of the cookies, happily, is as high as that of the packaging and the combination—under the well-established quality name of Pepperidge Farm—has brought exceptional publicity in the consumer press. New York stores report that they have been unable to keep the cookies in stock.

For the package design, the company went to one of the country's leading package design firms, which has created an individual package for each of the six individual varieties—Venice, Bordeaux, Capri, Dresden, Brussels and Biarritz—as well as for Monte Carlo, which is an assortment of all six varieties.

The object was to give the packages a top-quality, imported appearance in keeping with the imported recipes and ovens and to create an appropriate tie-in with the foreign product names. The cookies retail for 59 and 69 cents a package and will be sold by Pepperidge Farm in all types of food outlets.

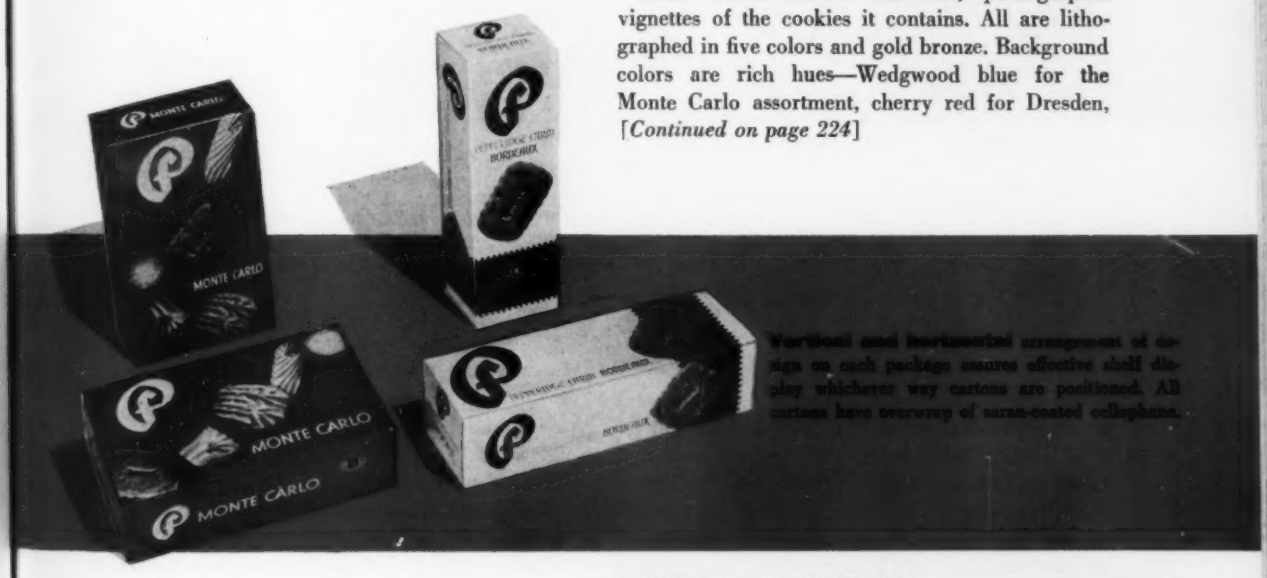
The design is distinguished by a highly stylized monogram trademark in the form of a lower-case "f" superimposed on a capital "P." The new trademark is to be used exclusively on the cookie packages.

The trademark is designed for quick recognition in any color or size and is deliberately used in several different colors on the various cartons. In addition to appearing on all visible surfaces of the packages, it is being featured in all advertising and promotional material as well as on Volkswagen delivery trucks and drivers' uniforms.

For effective shelf display in either vertical or horizontal position, the carton designs are arranged so that one face and the end flaps of each carton read in the vertical position, while the other face and two side panels carry the same design features in a horizontal position.

Each carton carries full-color, photographic vignettes of the cookies it contains. All are lithographed in five colors and gold bronze. Background colors are rich hues—Wedgwood blue for the Monte Carlo assortment, cherry red for Dresden,

[*Continued on page 224*]



Vertical and horizontal arrangement of design on each package assures effective shelf display whichever way cartons are positioned. All cartons have overwrap of saran-coated cellophane.

PHOTOS COURTESY JIM NASH ASSOCIATES, INC.

Interior packaging is designed for utmost protection—corrugated waxed paper cups and liners. Trademark-printed cellophane insert provides added luxury touch. Foil lamination inside cartons protects freshness, adds to appearance.

Sheet acetate identifies, the rubberized-fibre pads position and cushion delicate ends of tube. Handle and slotted lid make screen-printed container easy to carry and to open.

Functional transparency

For a TV-camera tube that must be kept always at hand for quick replacement, GE uses an acetate box that gets careful handling because it shows what's inside

Transparent packaging now does an unusual functional job for General Electric: it helps keep expensive television tubes from getting damaged.

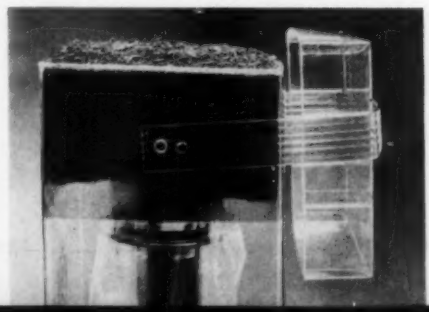
GE's image orthicon tube—the vital "eye" of a television camera—is a very delicate, costly instrument. If it should burn out, the camera is put out of operation. Thus it is essential always to have a replacement tube close at hand while the camera is being used. But a television studio can be a hectic place while a program is televised and a fragile spare tube lying around unidentified—even in a package—can easily be damaged or broken.

General Electric's solution is to package each orthicon image tube in a completely transparent semi-rigid container fabricated from cellulose acetate sheet. Transparency, in this case, has a definite functional value. It instantly reveals the carton's contents, assuring the necessary kid-glove handling from studio technicians.

The construction of the acetate carton also helps to make sure that the tube is stored and carried in proper fashion. Since it is square in cross section, the container can be placed on a shelf without danger of the tube's rolling off. It can be either laid on one side or stood up on its bottom end while stored in this way.

A permanently attached curved handle on one end of the transparent carton, however, not only serves a carrying function, but prevents the tube from ever being accidentally stored with its lens end downward. This handle is so constructed that the acetate cover can slide up upon it for removal of the tube, yet the cover cannot be permanently removed, either intentionally or accidentally.

To open, cover slides to the top through slots in sides and handle swivels down. Cover can't be mislaid.



Extra protection for each end of tube

Over the lens, polyethylene bag (left) protects against scratches and dust. Over the base, shrink-type cellulose band guards contact pin and guarantees that the tube is unused.

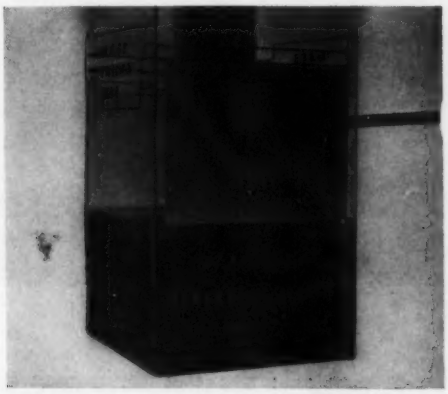
The handle is formed from 0.015 gauge acetate and corrugated for strength and appearance. It is riveted in place with two small metal eyelets which allow it to pivot in either direction. On either side of the square end cover are slots into which the two sides of the handle fit. To open the carton, the end piece is simply guided through the slots until it reaches the top of the handle. Then, when the handle is turned down, the tube can be removed.

Cushioning is provided by two rubberized fibre pads 3 in. thick, each with a 1½-in. die-cut well in the center, which provide a snug fit for both lens and base ends of the tube. When the tube is positioned in the two wells it is automatically centered inside the carton and held secure both vertically and horizontally. A felt disk inside the well on one end protects the lens from scratching.

Still another protective feature for this sensitive tube is a small polyethylene bag which is placed over the lens as an added precaution against scratching and to keep out dust and other foreign particles. On the base end of the tube, a cellulose band is sealed around the pins to assure the user that he is getting a factory-fresh tube.

The container itself is fabricated from a single piece of 0.020-gauge cellulose acetate sheet which is screen printed with product and company names in two colors. It is creased and sealed into a transparent carton 5 in. square and 18 in. long.

On the outside of each carton, GE attaches a pressure-sensitive label, providing spaces on which [*Continued on page 220*]



Tube record, a pressure-sensitive label fastened to the outside of the container, has spaces for recording performance data.

Corrugated container in which tube package is shipped has unusual construction that keeps tube upright.

Sun-glass demonstrator

Main attraction of the new demonstration display unit now in use by American Optical Co. is a giant pair of eye glasses, which has one lens made of ordinary glass, the other of Polaroid. Mounted on a metal arm in the center of the display rack, the glasses can be swung back and forth over a lighted picture. In this way, customers can see for themselves the effects produced by American Optical's Polaroid sun glasses.

Arranged around the demonstrator are four wire racks which provide enough space for a compact display of as many as 96 pairs of sun glasses in an assortment of styles, colors and prices. The arms can be detached or slanted to fit the requirements of any store display and a set of detachable metal legs makes the demonstrator usable as either a floor or a counter piece. Also included with American Optical's "See For Yourself" display are large dummy pairs of glasses to be hung anywhere in a store, as well as smaller pairs in the form of mobiles.

Credit: *Displays by Forbes Lithograph Mfg. Co., P. O. Box 513, Boston 2, Mass.*

Display Gallery

Vacuum-formed auto bounces on Falstaff stacker

"Sing a Song of 6 Paks" is the theme of this colorful new motion pole stacker for Falstaff Brewing Co., which combines lithographed paperboard and vacuum-formed plastics. A three-dimensional vinyl plastic automobile and its feathered occupants bounce up and down gaily, simulating an ancient family car on a rutted country lane. They are powered by flashlight batteries, which are reported to keep them going for a matter of weeks without requiring any sort of attention or servicing.

The pole on which the vacuum-formed piece is mounted is 7 ft. tall, with room enough provided for the retailer to stack up as many as a full gross of Falstaff 6-Pak cartons around it in a store aisle.

The pole stackers, which Falstaff says made a smash hit in pre-season field tests, are now being distributed throughout the St. Louis brewery's 28-state distribution market. These attention-getting displays will be one part of an intensive spring merchandising campaign built around the take-home packages.

Credit: *Display by Einson Freeman Co., Inc., Starr & Borden Aves., Long Island City, 1, N. Y.*

Toni goes to school

Planning ahead for the fall, the Toni Co. has designed this "School Days" display vendor as a tie-in with a projected back-to-school promotion for its various permanent-wave and hair-care products.

The campaign's target is the high school teenager and the college girl.

The die-cut back-piece at the rear of the display illustrates a coed and her younger sister cheering for their team—with the messages, "School Days" and "Hair Care Time" appearing on a megaphone and a banner.

The floor stand itself is made of heavy corrugated board in the shape of a miniature school building, with a colorful simulated red-brick design. On either side of the school house, "school slates" list Bobbi, Casual, Tonette and Children's Prom—the four products on display. On top of the school, a bin holds from six to eight dozen packages of assorted Toni products.

The display piece is designed for use in drug stores and all other outlets that carry Toni products.

Credit: *Display by Hinde & Dauch, Sandusky, Ohio.*

Display Gallery

Scotch tape on a mobile merry-go-round

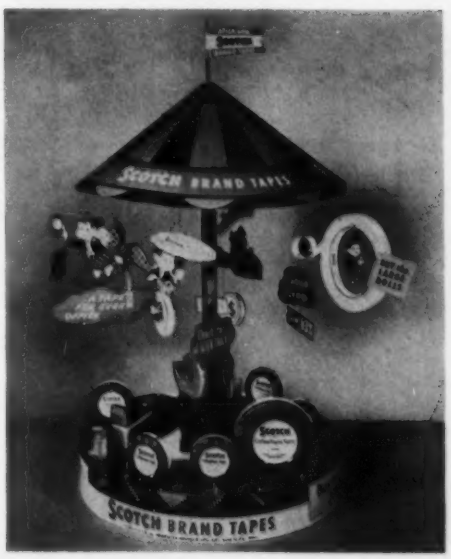
Motive power for this new Minnesota Mining & Mfg. Co. display for "Scotch" brand cellulose tape costs exactly nothing.

Adaptable for use either on store counters or in store windows, it is constructed on the popular mobile principle and is immediately set in motion by the slightest breath of moving air.

The entire display is made of lithographed paperboard. Central piece is a colorful carousel-like top, balanced to revolve easily. Suspended from this are a number of slogans, cut-outs and trademark characters, each designed to revolve in two directions—around with the top piece and independently on its own axis. Little kilt-clad Scots, simulated rolls of tape and such legends as "A tape for every office," "A dispenser desk," "Colossal savings . . . up to 63%" and "Buy the large rolls" are included among the separate revolving elements.

The base of the display resembles a giant roll of "Scotch" tape lying on its side and provides space for a supply of tape packages and an assortment of dispensers.

Credit: *Display by Zipprodt, Inc., 6 N. Michigan Ave., Chicago 2.*



Informative bug killers

Niagara Chemical's full-color labels with chart-form instructions help the shopper serve himself and provide vivid display interest on the garden-supply store shelf

Ever try to select the right bug killer for the plants in your garden from the confusing array of packaged agricultural chemicals now on the shelves of the average garden-supply store?

Today's sales person is not often of much help—and with the continued trend to self service in these outlets, more often than not there is *no* sales person. Up to the present, the information on the package has been of little help, either.

The increasing variety of packaged chemicals competing for attention in the garden-supply store has only added to the confusion. Successful leaders in this field are beginning to realize that packaging must be stepped up in this area, as elsewhere, to maintain dealer acceptance and enviable shelf position.

An indication of what is happening in this field is the 29-item garden-products line of new packages just adopted by Niagara Chemical Div. of Food Machinery & Chemical Corp., Middleport, N. Y.—since 1904, one of the leading producers of agricultural chemicals.

Niagara Chemical's new packages incorporate all the attention-getting devices associated with self-selling packages which have proved so successful in food stores:

1. Full-color illustrations of fruits, vegetables and flowers that associate the product with the plants on which they are to be used.
2. Strengthened new trademark identity.
3. Simplification of design elements to get away from former cluttered-up appearance.
4. Chart-form instruction copy, easy to read at a glance to find out what the products are for and how to use them.
5. Consolidation of the line and elimination of

PHOTOS COURTESY DESIGN ASSOCIATES, LTD.

OLD

Rectangular shape of new containers provides ample space for colorful display of pleasing illustrations that identify product with type of plant on which it is to be used. Uniform Niagara trademark appears on all packages. Meaningless "trick" names have been eliminated. Well-planned design does away with former clutter and confusion.

NEW

meaningless trick names through the adoption of simplified trade names more descriptive of the products.

6. Color coding of the packages for quick identification of basic product groups.

7. Change of package form to rectangular fibre canisters with metal ends as a shape more effective for display, more convenient for space saving in shipping containers and easier for consumers to use.

8. Modified parabolic design motif as a basic format for effective identity in mass display. When the packages are lined up on a shelf, this curved design element creates the effect of a white "picket fence," quickly distinquishing the Niagara line.

Niagara Chemical turned over the entire problem of re-organizing, modernizing and restyling the garden-products line to a leading design firm and gave the designers a free hand to make any recommendations they felt were in order regarding all aspects of the packaging, handling, organization and merchandising of the line.

Before beginning the project, the designers made an extensive study to learn as much as possible about methods used for processing, packaging, handling and shipping such products. A field study was made of typical metropolitan and suburban nurseries, hardware and garden-supply stores where the products are sold.

By interviewing sales people and store managers, the designers were able to gather much information about what consumers and sales people knew about the products, which types of packages were preferred, what was desired in these kinds of products and what could be done to improve the selling of them. Competitive products were studied at the same time.

On the basis of this research, recommendations were made not only affecting the appearance of the packages, but product names, instruction copy and color coding. Consolidation of the line was recommended for the purpose of coordinating promotion and advertising campaigns and the establishment [*Continued on page 225*]

Picket-fence motif, achieved by parabolic shape of illustration area when packages are arranged in mass display, distinguishes line, makes it stand out on shelf, provides identity for use in all advertising and promotional material.

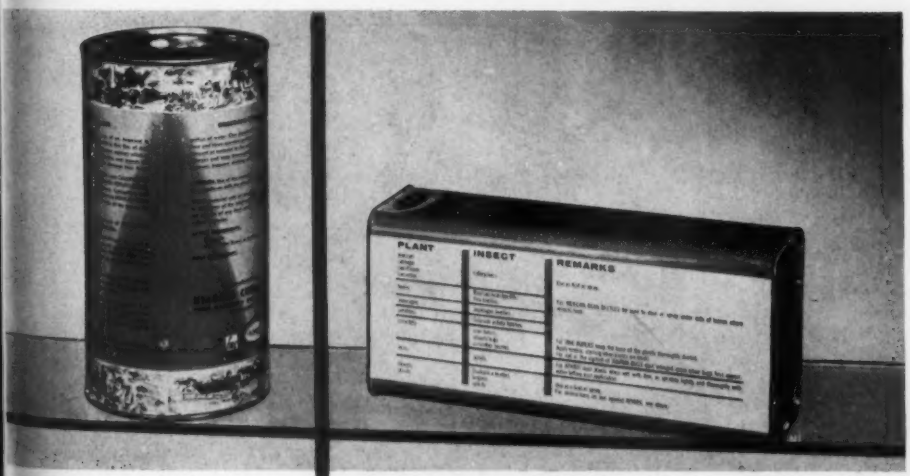


Chart-form instructions show at a glance what each product is recommended for and how to use it. On the old round packages, sales people and consumers both had to struggle through long paragraphs of small type to find required instructions.

OWENS-ILLINOIS ASSURES YOU A

Co-ordinated Research

Pure research into formulae and fabrication of glass, *packaging research* into processing and handling methods in customer plants, and *market research* into consumer attitudes, add up to greater specific value for your packaging dollar.

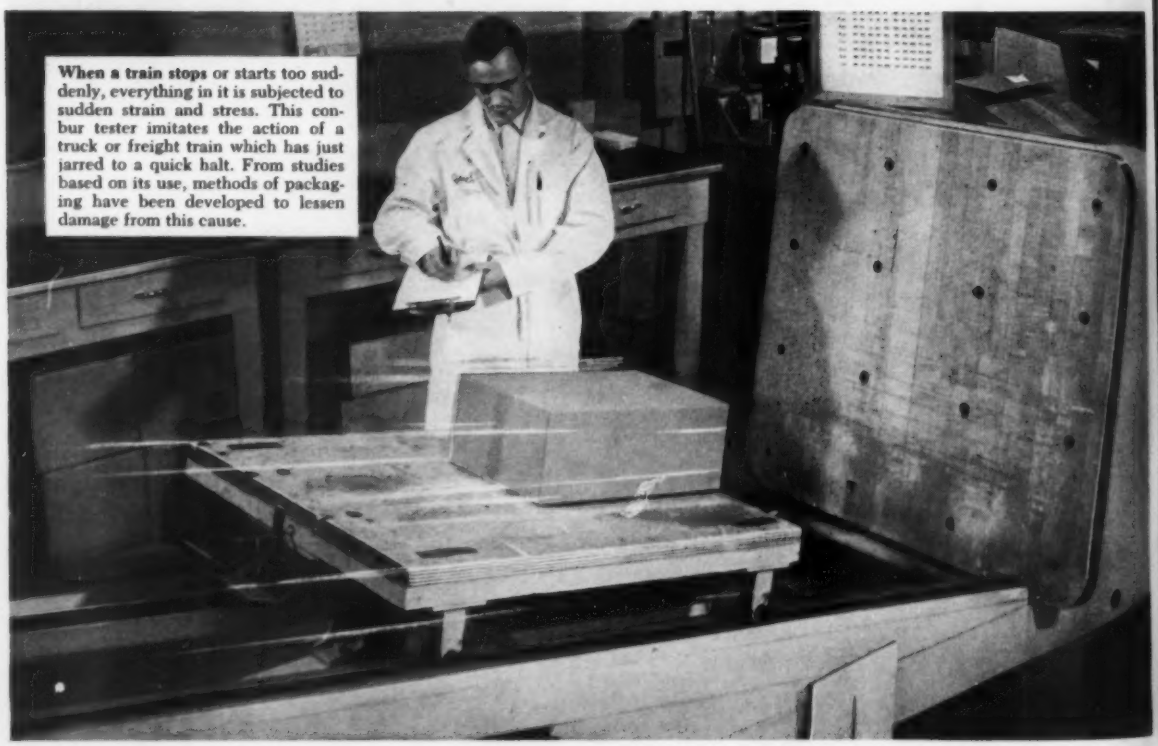
Engineered Design

The package that takes your product to market must take *three* needs into account. Considerations of its function in the retail store, its operating efficiency and its consumer utility all become a part of the prescription for an Owens-Illinois package.

The Right Container

Versatility of facilities enables Owens-Illinois to supply containers to meet special needs: Duraglas containers for almost any item; Libbey Safedge packing tumblers or premiums; Kimble Ampuls and Vials; and a variety of Owens-Illinois plastic containers.

The Right Carton



When a train stops or starts too suddenly, everything in it is subjected to sudden strain and stress. This conbur tester imitates the action of a truck or freight train which has just jarred to a quick halt. From studies based on its use, methods of packaging have been developed to lessen damage from this cause.

COMPLETE PACKAGING APPROACH

The Right Closure

Know-how as to the best available liner and closure—best for packing, displaying, or using a specific product—may well be one of the most important single points through which expert packaging counsel will reward you many times over.

Needed Fitments

With emphasis on the word "needed," Owens-Illinois specialists are keenly aware of sales benefits possible through use of plastic shaker and pour-out fitments which are not "gadgets" but which increase consumer satisfaction with your product.

Merchandising Cartons

Modern cartons are developed only through systematic consideration of their opportunity to serve you in the retail store and retail warehouse as well as on your own filling line and in transit. Owens-Illinois is pioneering such developments.

Saves Important Money...

Owens-Illinois tested cartons protect your shipments from plant to point-of-sale

You waste important money when you under-pack or over-pack.

Determining the corrugated carton of the *right* strength and style for your product is a basic part of the Owens-Illinois approach to your total packaging problem.

We sell no unfilled cartons. But our tight specifications for acceptable raw materials and our *complete* quality control operations are geared to provide cartons that assure our glass container customers the maximum value for their packaging dollar.

DURAGLAS CONTAINERS
AN (O) PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES · TOLEDO 1, OHIO

Three new skin-tight films

New formulations and methods of application are significant of increasing demand in the meat field for protective transparent packaging that gives eye appeal

Three new types of shrink-tight plastic films have made their appearance in the packaging field in the last few months, joining older materials already well established in the meat and poultry fields.

In some instances, the films are pre-stretched before being applied to the product, then allowed to draw up tightly around it of their own accord. In other instances, the films are oriented during the manufacturing process and shrink to their final conforming fit after being subjected to heat following the packaging operation.

Whatever the method, the shrink-tight transparent package combines efficient product protection and merchandising appeal. The skin-tight conformation of package to product eliminates air spaces, while the moistureproof character of the films prevents loss of product moisture and reduces shrinkage to a minimum. The snug fit brings out the attractive printing on the film and gives the package a wealth of merchandising wallop.

The three new materials, described here in three different examples of use, are a modified polyethylene film, a vinyl-nitrile blend and an oriented Pliofilm. It is also known that a shrink-type polyester film has reached the stage of test operations in several meat plants.

Vinyl

The Sucher Packing Co., Dayton, Ohio, for many years a leading supplier of processed meat products in that area, is packaging pork shoulder picnics, imitation chicken loaf and a number of other prepared meat items in a stretchable vinyl-nitrile film which has excellent memory characteristics, takes printing attractively and may be quickly and conveniently applied to the various meat items by means of a semi-automatic machine which prestretches the film, permitting it to contract to a tight, conforming fit as soon as the stuffing operation has been completed.

Officials of the Sucher organization report that casings and envelopes fabricated from this type of film afford increased production, economical use of packaging material and increased sales appeal. Through the use of such casings for smoked picnics, Sucher has found it possible to increase its produc-

Form-fitting vinyl nitrile clings to product as soon as stuffing operation is completed. Operator places bag in position on retracted fingers of the stuffing machine. Foot-pedal pressure causes fingers to spread, stretching the casing so that product slips into the package easily.

Pre-stretched bag contracts tightly around pork shoulder picnic when foot-pedal pressure is released, producing package with eye appeal and effective protection. Open bag neck is twisted and sealed by metal clip applied in background.

tion capacity and also to decrease casing breakage. Sucher spokesmen also point out that the film offers an excellent type of printing surface—an important consideration for items sold in self service, where much depends upon their appearance. Printed by the flexographic process in brilliant red, yellow and blue, the Sucher "Yummy" line of packages with their smiling porker portrait are immediately identifiable and make a favorable impression on the busy shopper.

The film is a modified and improved version of a film developed several years ago for the margarine coloring "squeeze bag." The film is not an oriented variety, but is manufactured with a high degree of built-in returnable stretch or memory. At present, it is most widely used by Sucher and other meat packers in the 0.002-in. thickness. It is supplied in the form of casings, envelopes and bags in various sizes to fit a wide range of products.

The cling characteristics of the improved film, which has much greater returnable stretch than that used in the original squeeze-bag application, are described as notable. It has a high degree of transparency which contributes sparkling eye appeal to the products packaged, while its returnable stretch eliminates air pockets.

In the Sucher Packing Co. plant, casings and envelopes of this type film are used in conjunction with a specially developed stuffing unit which provides easy and rapid application and a controlled stretch of the material, both in degree and directionally. The stuffing machine, of stainless steel and aluminum construction, is air operated and controlled by a foot pedal. Available with several types and sizes of interchangeable "fingers" and side plates, the unit will accommodate products within a size range up to 7 by 12 in. The various finger shapes and arrangements for pre-stretching the film to accommodate the product are intended to conform as closely as practical to the contour of the cross-section of the packaged item at its point of largest periphery. By controlling the direction as well as the degree of stretch given to the film, the machine insures a finished package with a tight, conforming fit and maximum advertising appeal.

In the first phase of the Sucher packaging operation, the operator places a prefabricated, arc-ended bag in position on the closed fingers of the stuffing machine. Pressure on the foot pedal causes the fingers of the machine to spread, stretching the printed casing to the proper dimensions. At this point, the pork shoulder picnic or other item is slid into the bag in the correct position, so that the Sucher trademark and other identifying data are properly indexed on the product. Release of pressure on the foot pedal retracts the metal fingers and allows the film to contract snugly around the product.

Attractive polyethylene package is shown in close-up photo. Printed bag has complete trademark and product identity, U. S. inspection legend, spaces for weight and price marking.

In the final stage of the packaging process, the open end of the casing is twisted and sealed with a metal clip. Any excess film extending beyond the clip is cut off to produce a neat finished package. Packages are packed in shipping containers without further treatment.

This type of film is available either clear or in an amber and tango color, as preferred by the user. Prefabricated bags or tubes are printed by the flexographic process by the film producer; film is not supplied in sheet form. The optimum temperature for packaging in film of this type is in the 50 to 60 deg. F. range. When packaging is performed in a cooler at lower temperatures, a suitable heat lamp may be positioned about 20 in. above the stacked packages prior to application to keep them more flexible and facilitate the packaging process. The film has a wide heat-sealing range and can be heat sealed conveniently when used on certain types of products, such as chunk sausage items. In this case, the loose ends of the package are folded under and heat sealed. In either event, the finished products reportedly have long shelf life and minimum shrinkage, due to the protective features of the elastic plastic film.

Credit: *Visten packages and Tite-Wrap stuffing machine, The Visking Corp., 6733 W. 65 St., Chicago 38.*

Polyethylene

Forest Poultry Co., Chicago, and other firms are using a new stretchable type of specially developed modified polyethylene film poultry bag which requires no subsequent immersion in hot water to obtain a skin-tight fit on the product.

This bag in conjunction with a new type of elec-

In continuous stuffer, one operator places round-bottom modified polyethylene film bag on end of stuffing cone. The other places bird in mouth of cone. Machine automatically pushes bird through cone into pre-stretched bag. Chain next to stuffer carries crossbar that guides bird into bag.

Film contracts immediately on leaving stuffing horn. Neck is twisted and closed with metal clip. End of bag is cut off in this kind of equipment. Bag requires no dipping to shrink to final fit.

trically powered continuous stuffing machine reportedly is greatly increasing the speed and efficiency of the packing operation on MP brand and Lady Astor brand frozen whole poultry items. With this combination of package and packaging equipment, the company is able to package 3- to 8-lb. birds at a rate of 720 to 900 units per hour.

The attractively printed poultry bags are made in the form of a seamless tube, with the closed end rounded for a smooth, snug fit over the breast of the bird. Due to the elastic nature and "recovery" characteristics of the specially developed polyethylene film, the pouches hug the poultry closely as soon as they leave the stuffing machine. Since the packaging material is stretched prior to insertion of the bird, the original packaging material or pouch is smaller than if the material were shrunk to its ultimate dimensions, which cuts down packaging material costs by reducing the total area of the film required.

Inasmuch as pouches of this type require no hot water or chemical dip to complete the packaging operation, the packages are dry when the birds are placed in the freezer. As a result, there are reportedly no water-vapor deposits produced on the freezer coils where the poultry is stored. If the salt-spray system of refrigeration is used in the freezer, there is no moisture present on the packages to dilute the salt spray. Also, due to the low-temperature strength and flexibility of the film, even at temperatures as low as 70 deg. below zero, the pouches will not shatter in the freezer, according to the manufacturer. If the packages should be accidentally punctured or torn, the tear will not run. The high moistureproofness of the film effectively retards moisture loss and shrinkage of poultry during storage.

From the merchandising standpoint, poultry packed in pouches of this type which have excellent clarity presents a plump, pleasing appearance, showing off the wide, white meat breast of the bird because the tight pouch tucks the wings close to its sides. Printing on the film, produced by the flexographic process, stands out sharply, providing unmistakable brand identification.

In the large-scale packaging operations required for its Lady Aster and MP brand poultry, processed and packaged under federal inspection, Forest Poultry uses four basic bag sizes, designated as 6 by 18, 7 by 18, 7 by 20 and 8 by 20 in. These sizes bracket fowl, roasting chickens and capons ranging from 3 to 8 lbs. in weight. Briefly, the procedure used by this company in packaging the poultry consists of (1) inserting the birds into the stretched bags, (2) evacuating the air from the bag and (3) clipping off the bag and sending the finished package to the freezer.

The continuous stuffing machine used by this firm is equipped with a dial-adjusted variable speed control. The unit is capable of handling up to 25 birds per minute, depending upon the number of operators used. At Forest Poultry, the packaging operation is usually run at around 12 to 14 birds per minute, or from 720 to 900 birds per hour, using two operators. Faster rates may be obtained if bags are prepared or alternately placed on the stuffing horns by a third operator. The same machinery supplier makes a foot-operated stuffing ma-

chine on the same principle for smaller poultry-processing plants.

The new principle of the continuous stuffing machine is the design of the "pusher" for the product —a traveling crossbar or metal plate drawn by two chains mounted along the sides of the unit—which continues on through the opening horns, rather than withdrawing after each bird has been pushed into the stretched bag and again reversing its motion. This arrangement reportedly gives the machine a smooth, uninterrupted forward motion and high degree of efficiency.

The stuffing horn, through which each bird is guided into the opened bag placed on the other end of the horn, is made in segments, each of which is separately hinged to permit independent movement as the bird moves through. The stuffing horns are automatically opened by the mechanical action of the machine so that the product being packaged is not distorted by pushing the horns open as the bag is stretched. All exposed portions of the unit are constructed of stainless steel. The elastic packaging material conforms to the bird the instant it is pushed off the horn.

In the Forest Poultry installation, two workers operate as a team in placing the birds in the printed bags. One operator slips the empty bags over the smaller end of the cone-shaped stuffing fixture and removes the birds from the table as they emerge, snugly packed in the polyethylene pouches. Bags are placed on the stuffing horn so that the printed design is correctly positioned on the breast of the birds. The other operator removes each graded fowl or hen from an adjacent table and places it in the mouth of the stuffing horn, neck first and so that the feet of the bird will contact the traveling plate which pushes the product directly into the bag. Actually, there are two such plates mounted on the moving chains, so that one is coming up into operating position just as the other completes a bag packing cycle.

At Forest Poultry, only two interchangeable sets of horns, with different dimensions, are required to cover all sizes of birds packaged in this manner. The change-over from one set of horns to another is conveniently handled in about five to 10 minutes.

Following the bagging operation in the stretchable pouches, the birds are again graded and taken to one of two machines on which the bags are evacuated, sealed by means of a metal clip and cut off just beyond the clip to produce a neat finished package. In this phase of the packaging process, the mouth of each bag is held over a vacuum nozzle having a specially constructed fitting which rotates to twist the neck of the bag tightly before the metal closure is applied. The completed packages are packed in wirebound wooden boxes and transferred to the blast freezer, where the poultry is frozen at sub-zero temperatures.

Credits: *Mil-O-Film pouches for "Tite-Vac" process, Milprint, Inc., Milwaukee 1, Wis. Continuous poultry stuffing machine, Barker Poultry Equipment Co., Ottumwa, Ia. Unit for evacuating and sealing bags, Dewey & Almy Chemical Co., Div. W. R. Grace & Co., 62 Whittemore Ave., Cambridge 40, Mass.*

Pliofilm

When the molecular structure of a packaging film is altered by stretching the material, several interesting changes take place in its physical properties. The original gauge or thickness of the material is reduced, the amount of reduction depending upon the degree of stretch involved. And the film develops a "memory," in that upon subsequent application of heat, it tends to return to its original unstretched dimensions.

Morrell-Felin Co., Philadelphia, is now making effective use of this memory characteristic in the packaging of its popular Pridette boneless pork shoulder butts. The material used for this purpose is an oriented type of Pliofilm whose first major use in the meat industry is for such items as hams, picnics, loaf products, tongues, chunk sausage items and poultry products.

Due to the fact that the film used by Morrell-Felin for these products is bilaterally stretched during the manufacturing process, it shrinks to a skin-

Neat appearance of pork shoulder butts in oriented Pliofilm package makes a hit in self-service markets. The wrappers carry colorful printing.

Hand wrapping is first step in packaging Pridettes in oriented Pliofilm. Wrapper is spot sealed, but both ends of the wrap are left open.

Twisted seal is made as partially wrapped product is brought into contact with turning belt which rotates package and rapidly twists ends into "pigtails" which effect a secure closure.

Hot water immersion is necessary to effect the shrink-tight seal. After twisting operation, the operator slides each package into a tank of water heated to 190 deg. F. Oriented film shrinks immediately on contact with the hot water.

tight, perfectly conforming fit around the product when the package is momentarily dipped in a tank containing water at a temperature ranging from 180 to 200 deg. F. This shrinking process may also be obtained, if necessary, by subjecting a finished package to dry heat in the same temperature range.

Morrell-Felin's packaging operation with this type of film proceeds smoothly and efficiently, producing completed packages with wrinkle-free covering and attractive printing that give excellent sales appeal. The new packages have been credited by the firm for considerably increasing sales. Packages of the same type are now being tested by the company on various other types of manufactured meat products.

Since the oriented film reportedly withstands low temperatures and does not become brittle, it is also applicable for use with almost any frozen meat product. In shrinking to the conformity of the product wrapped, the film eliminates virtually all air pockets, providing a high degree of moisture protection which prevents the meat from shrinking or drying out. Available in printed or unprinted roll stock up to 36 in. wide, the film is described as low in cost, yielding approximately 55,000 sq. in. to the pound in the 40-gauge thickness.

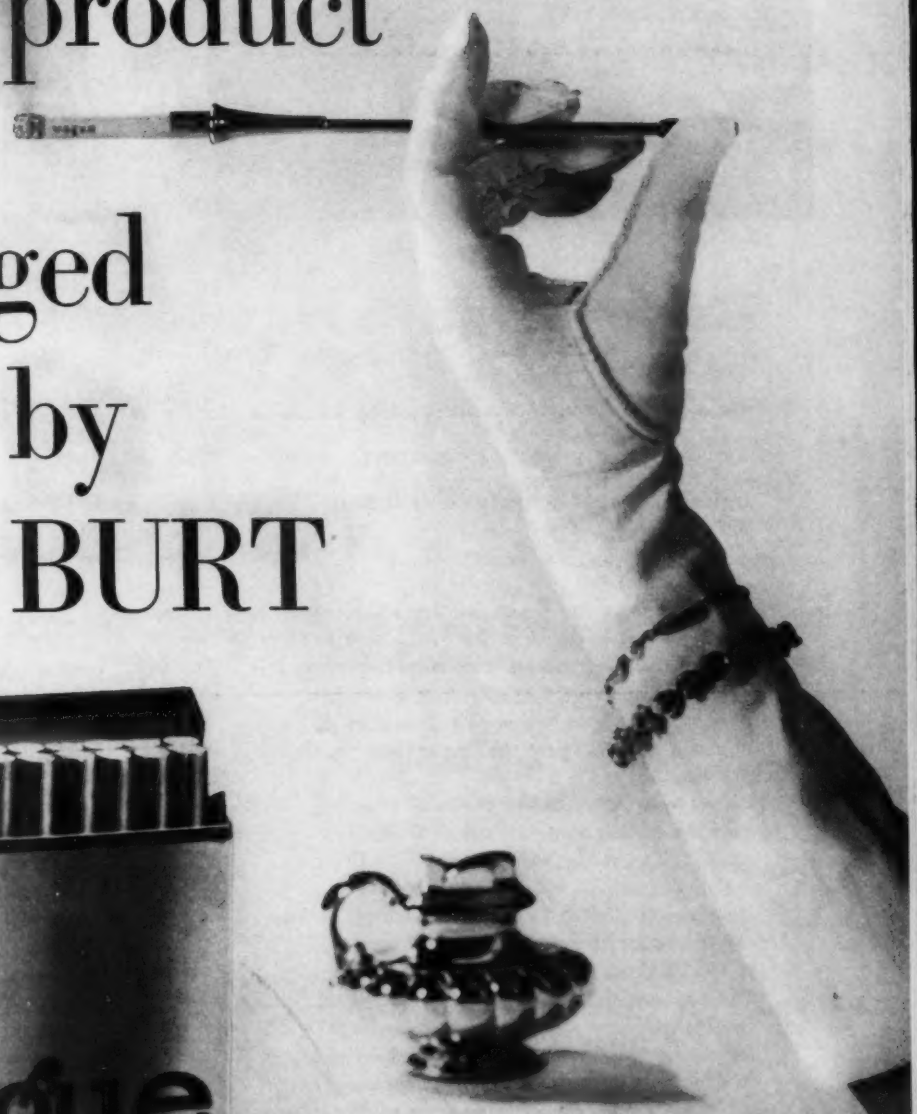
As part of the manufacturing process, the Morrell-Felin pork shoulder butts are stuffed in cellulose "former" casings, three butts to a casing. Processed in these casings, the butts are chilled down to about 50 deg. F. and brought to the wrapping room on smoke trees—the metal hangers on which they are held in the smokehouse. Here an operator cuts the butts apart and passes them along to the wrapper.

Each butt is hand wrapped in printed film stock supplied in continuous roll form and spot sealed. Projecting ends are left loose. The partially wrapped butts pass by conveyor belt to the next operator, who grasps each package at the two unsealed ends and brings the product into contact with a continuously turning belt. This causes the product to rotate rapidly, tightly twisting the film ends into "pigtails" effecting a secure closure at both ends.

After the twisting operation, each package is dropped onto a chute which delivers it into a dip tank containing water at a temperature of approximately 190 deg. F. As soon as the package strikes the water, the oriented film immediately shrinks to a skin-tight, conforming fit with virtually all air expelled. On removal from the dip tank, packages are weighed, marked and placed in corrugated containers for refrigeration or shipment.

Credits: *Snug-Pak oriented Pliofilm, Tee-Pak, Inc., 3520 S. Morgan, Chicago. Hot wire sheeting device and hotplate and revolving belt package twisting machine, Amsco Packaging Machinery Leasing Corp., 31-31 48 Ave., Long Island City, N. Y.*

another prestige product packaged by BURT



Vogue cigarette box
manufactured for Stephano Brothers
1014 Walnut St., Philadelphia, Pa.

F. N. Burt Company, Inc.
Manufacturers of Small Set-up Boxes,
Folding Cartons and Transparent Containers.
500-540 Seneca Street, Buffalo 4, New York.
Offices in Principal Cities Or Write Direct.
Canadian Division: Dominion Paper Box Co., Ltd.
469-483 King St. W., Toronto, Canada.

Practical size of 2-ft.-6½-in.-1¾-in. corrugated carton wins retailer acceptance for new product because of convenient pre-pack that cuts handling and delivery expense. Carton also doubles as pre-pack for two refills.

Easy-to-ship mop

Retailer problem of handling bulky item is solved by corrugated package so compact a shopper could actually carry it in a shopping bag

By approaching packaging from the retailer's point of view, Paper Dust Mop, Inc., New York, is gaining ready acceptance from store buyers for its new-type disposable dust mop in a convenient pre-pack. The example is a good one to show the importance of packaging that recognizes packaging problems.

Cost-conscious retailers generally seem to resist stocking another mop—an awkward item they class as difficult to handle and expensive to deliver.

To surmount this major marketing obstacle, Paper Dust Mop is offering its three-piece mop in a single corrugated carton and uses the same carton, properly identified, as a pre-pack for two refill packages. The complete unit is only 2 ft. long, 6½ in. wide and 1¾ in. deep—a size, apparently, quite practical for storage on stockroom shelves and immediately ready for delivery or carry home, once a shopper has made a purchase from an open sample of the mop and refill packages on display in the store.

The paper dust mop consists of an individually packaged mop head equipped with tear-off sheets of chemically treated papers and a two-piece handle joined at the middle with a threaded metal-end fitment. Shipped complete in the individual carton ready for delivery to the consumer, the assembly weighs only 2 lbs., putting it in a low parcel-post rate bracket. Moreover, mop head and handle in one carton reduce delivery-service charges for the stores, since mop deliveries are usually a two-package proposition and contract delivery services charge by the package. An additional store economy effected by the mop pre-pack is the elimination of the cost of labor and materials customarily borne by the store in wrapping mops and handles, most of which are shipped in bulk.

And although retailer convenience of the pre-pack has been stressed, the mop manufacturer has not overlooked impulse-purchase potentials by using bold and colorful poster-style printing on the mop-head and refill wrappers, which are displayed prominently at the point of sale.

The mop head is comprised of 60 sheets of chemically treated paper stapled to a fibreboard panel equipped with two screw heads which fasten by nuts to a metal mop head. Refill pads contain 120 sheets each.

Refills and mop are first wrapped in parchment, letterpress printed in blue, black and white in an extremely legible, modern type face to emphasize the disposable feature and trade name. The printing

[*Continued on page 218*]

How 4 types of packaging made of BAKELITE plastics give you...

New ways to add sales features

These polyethylene bottles, made by a unique extrusion-fabrication process, offer advantages of excellent detail of multicolor printing . . . brand visibility throughout life of contents . . . controlled dispensing without mechanical devices or separate plugs . . . "recovery" that can snuff back overflow at the orifice, keeping head and cap clean. Bottles are base-filled at high speeds on standard equipment, then sealed with polyethylene discs.

These benefits are in addition to all the other advantages of BAKELITE Brand Polyethylene—light weight... resistance to corrosion . . . excellent heat sealing . . . friendly feel . . . toughness and resilience. Investigate this newer way to attract the eyes of buyers. Write Dept. NX-105.

Polyethylene bottles are produced by **Bradley Container Corporation,** Maynard, Mass.

(continued)

New ways to add sales features

(*continued from preceding page*)

Robert Gair Company, Inc., New York, N. Y., developed this new type of white-pigmented polyethylene-coated paperboard carton in conjunction with Bakelite Company engineers.

New type polyethylene-coated paperboard "looks better...protects freshness better"

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"strips of pockets" package small parts more efficiently

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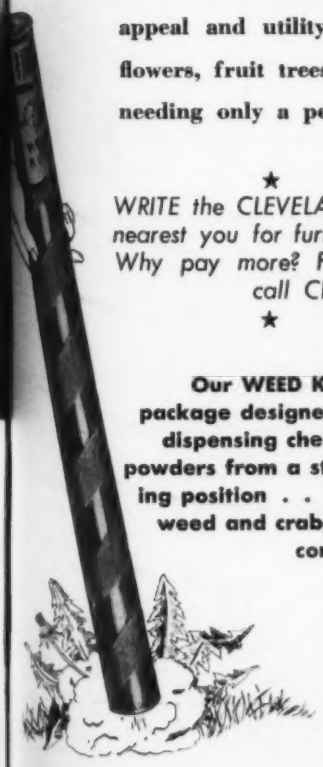

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Micro-gas analysis

Equipment and procedures developed for the determination of carbon dioxide and oxygen in flexible unit pouches are detailed and discussed.

*By Robert F. Dale**

The flexible-packaging industry has made tremendous advances during the past several years and with these changes has come the need for adequate testing equipment and methods. One of these developments has been the production of gastight, nitrogen-atmosphere pouches.

The following equipment and test procedure were developed to provide reliable information on the quality of the nitrogen flushing operation and on the tightness of the pouch itself. The use of this method during the past several years has proved it simple to operate, very reliable and to have several desirable features not found on other testers.

Description of apparatus

The assembled micro-gas analyzer, shown in Figs. 1 and 2, consists of the following parts:

1. *Platform to hold sample pouch.* A flat plate adjusted so that the pouch, when slid down, will be punctured by hypodermic needle.

2. *One No. 18 hypodermic needle.* A No. 18 needle is connected by rubber tubing to a measuring burette. Each connection is wired to prevent leaks.

3. *Van Slyke micro burette.* One of 3-ml. capacity; available through any laboratory supply house.

4. *Leveling bulb.* Ours was made from a 1-in. test tube with short glass tubing fused to the bottom.

5. *Reaction chamber.* This chamber can be made with either one or two reaction chambers, depending upon the nature of the gas to be measured. Fig.

1. Photographic view of the assembled micro-gas analyzer.

*Director, Research Engineering, Red Star Yeast & Products Co., Milwaukee, Wis.

3 shows the dimensions and construction of a two-chamber unit.

6. *Rectangular base support stand with appropriate clamps and special support bracket.* The special bracket is so constructed that the operator can rock the reaction chamber without jarring the remainder of the apparatus.

Solutions and charging

Three solutions are required to operate the micro-gas analyzer. They are:

1. Leveling liquid prepared by mixing 38 gms. of sodium chloride, 4 drops of (50%) sulfuric acid, 2 drops of "Tween 20"[1] and 200 ml. of water. After mixing is complete, methyl orange indicator is added until a strong orange color develops.

2. Acid-pyrogallol solution. Dissolve 30 gms. of acid-pyrogallol in 70 ml. of water.

3. Potassium hydroxide solution (KOH). Dissolve 30 gms. of potassium hydroxide in 70 ml. of water.

After the analyzer is assembled according to Fig. 2, it is ready to be charged with the various solutions. This operation should be handled as follows:

1. Pour leveling solution into the leveling tube until micro burette is filled and the leveling bulb is about one-half full.

Place 3 ml. of 30% acid-pyrogallol solution into the proper reaction chamber and add to it 15 ml. of 30% potassium hydroxide solution. By manipulating the leveling tube and stop cocks, draw the solution to Point A in the reaction chamber (Fig. 2) and place stopper with balloon-covered vent in open end of chamber. Then, by manipulation of the stop cocks, work the solution back and forth between the two chambers of the reaction chamber until it is thoroughly mixed.

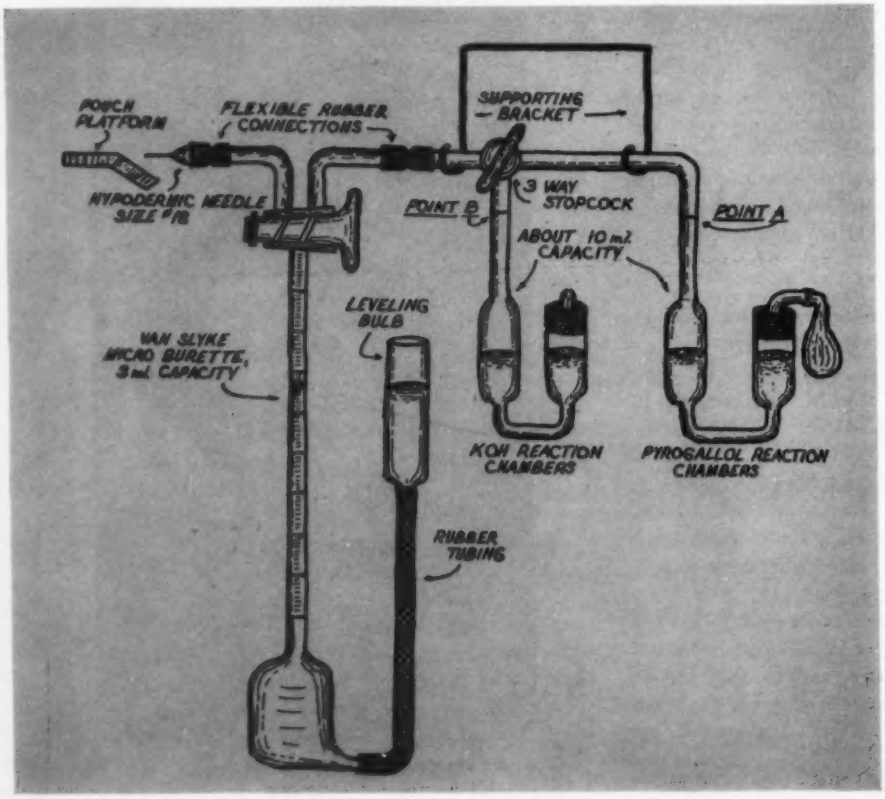
3. Next place 18 ml. of 30% potassium hydroxide solution into the second reaction chamber and draw to Point B. (*Note:* This chamber may be stoppered with a vented stopper to prevent splashing.)

Analytical method

Immediately following the charging of the apparatus, before starting to analyze a group of pouches,

[1]Trade name: a product of Atlas Powder Co.

2. Schematic diagram of assembled micro-gas analysis apparatus.



the charge should be tested for its ability to remove oxygen from a gas sample. This check operation is accomplished in the following manner:

1. By manipulating stop cocks and leveling bulb, bring the two reaction solutions to Points A and B.

2. Draw in a 2.5-3.0 ml. sample of air, measure gas volume and react with the potassium hydroxide (KOH) (*i.e.*, pass into chamber and shake about 10-15 times, then draw back to pipette and measure volume, allowing time for liquid drainage off the walls of the burette). Repeat reaction of gas with potassium hydroxide solution and subsequent steps until gas volume remains constant and record gas volume after reaction.

3. Then pass gas into pyrogallol chamber and repeat the shaking and measuring—usually three or four times.

4. Calculate the per cent carbon dioxide and per cent oxygen in the air as follows:

$$\% CO_2 = \frac{\text{orig. volume—volume after KOH}}{\text{original volume}} \times 100$$

$$\% CO_2 = \frac{\text{volume after KOH—volume after pyrogallol}}{\text{original volume}} \times 100$$

If the per cent oxygen in the air sample does not calculate to 20.5-21.0%, then the sample should be reacted again, or the pyrogallol has been used too much and it is unable to remove all the oxygen.

Assuming that the per cent oxygen is correct, then the unit is ready to analyze the gas in a pouch. The procedure is as follows:

1. Make sure the solutions in the reaction chambers are at Points A and B, respectively.

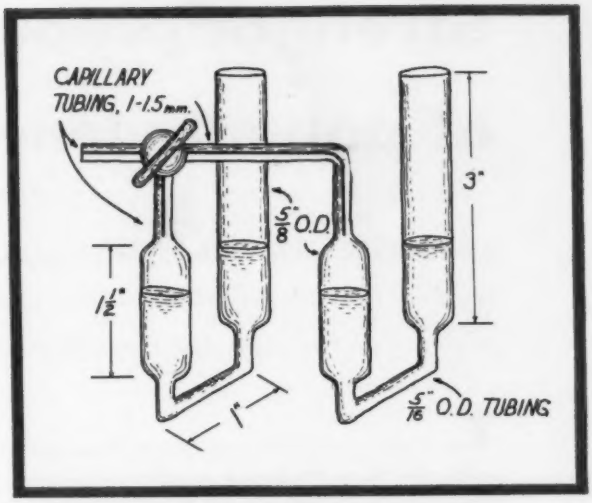
2. Adjust the stop cock so that leveling solution and gas can pass out through the hypodermic needle and raise the leveling tube until all the gas is expelled from the burette and the needle has a drop of solution on its tip.

3. Remove the liquid with a towel and insert needle into pouch. Immediately seal the needle into the pouch with paraffin.

Table I: Tests relating pouch tightness with gas analysis

Type of pouch under test	% CO_2	% O_2
1. A typical production pouch immediately after closure	0.0	0.5
2. Same as #1	0.0	0.0
3. A non-leaking pouch after 12 months' exposure*	0.8	0.0
4. A leaky pouch after 12 months' exposure*	0.0	17.8
5. A non-leaking pouch after 56 months' exposure*	1.6	0.0
6. A sample of air	0.0	20.8

*Degree of pouch tightness confirmed by quality evaluation of product contained in pouch.



3. Diagram and dimensions of a two-unit reaction chamber.

4. Lower the leveling bulb and open the stop cock to draw 2.5-3.0 ml. of gas into burette.

5. Close burette and allow time for walls to drain. Take initial reading.

6. Proceed as above and calculate the per cent carbon dioxide and oxygen in the pouch gas. (*Note:* The reaction with KOH solution can be eliminated if the sample gas contains no carbon dioxide.)

Discussion and results

The basic chemical reaction is identical to the process used in commercial practice (1)[2] and in the standard Orsat gas analyzers, hence its accuracy and reliability are known and recognized. The adaption of the chemical reaction to a micro operation is relatively simple and direct.

The inherent errors of the micro method are:

1. Inadequate wall drainage time.

2. Erroneous volume measurement caused by non-uniform wetting of the burette walls.

3. Not measuring the gas at a constant pressure.

4. Not bringing the reaction liquids to the same point before and after each reaction.

5. Over-use of the reaction solutions.

Errors resulting from Items 1, 4 and 5 above can be disregarded if careful operating techniques are used. Chances of error due to Item 2 will be reduced by adding "Tween 20" to the leveling liquid and by frequently cleaning the micro burette. The effect of Error 3 can be eliminated by matching the liquid level of the burette and leveling tube

[*Continued on page 216*]

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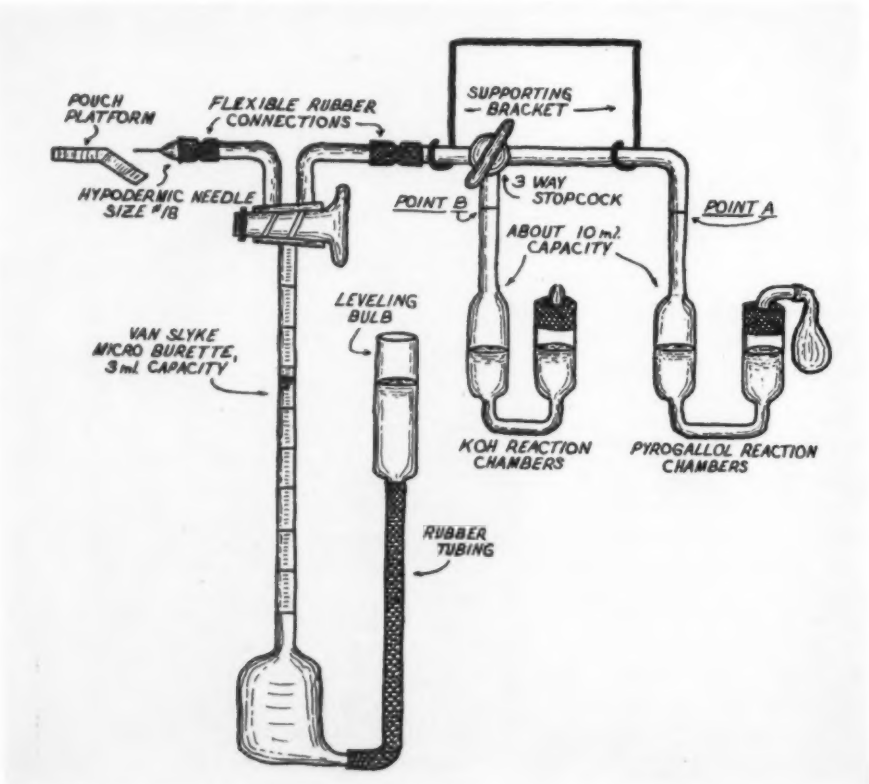

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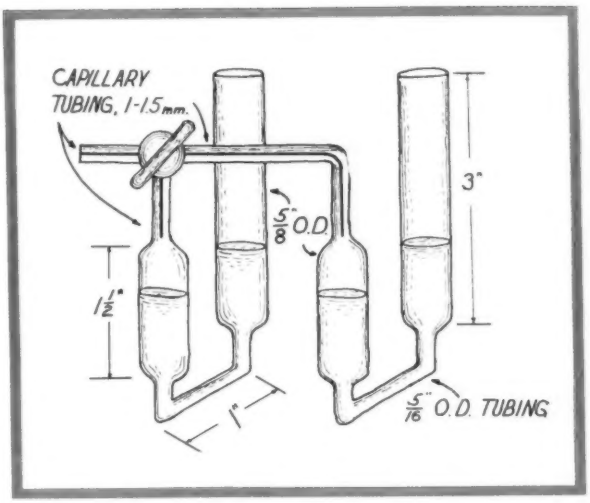

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[*Continued on page 216*]

[2]See References appended.

Strength properties of polyethylene-coated papers*

New dynamic test methods support field data indicating multiwall bag with polyethylene-coated paper ply has greater shock resistance than conventional paper tests indicate.

By K. A. Arnold†

The barrier properties of polyethylene-coated papers have been thoroughly considered. However, the strength properties of polyethylene-coated papers have received less attention. It is the purpose of this paper to discuss physical strength properties of polyethylene-coated papers particularly as they apply to bags and pouches.

Field performance data is characterized mostly by elusiveness, at least regarding the strength performance of multiwall bags as measured by the ratio of failures to successes. The causes of good and bad performance are usually reported based on human observation rather than objective tests. However, it is the field performance which makes or loses a customer. Where the usage covers many years and millions of bags on a particular job, it is the only measure of true performance.

With regard to polyethylene-coated papers, one instance has been recorded in which a 15-lb. (approximately 1 mil) coating on 50-lb. kraft was substituted directly for two walls of asphalt-laminated kraft, each constructed of 30 lbs. of kraft, 30 lbs. of asphalt and 30 lbs. of kraft, in a five-wall bag designed to hold 100 lbs. of material.

Records extend over five years on each construction and cover in excess of 20,000,000 bags. Strength performance of the bag with the polyethylene-coated paper wall is about equal to that of the two asphalt-laminated walls in the summer and better in the winter. The bag is more flexible and, therefore, easier to fill and handle. Total moisture barrier qualities are improved and rapid moisture transmission at crease points is eliminated.

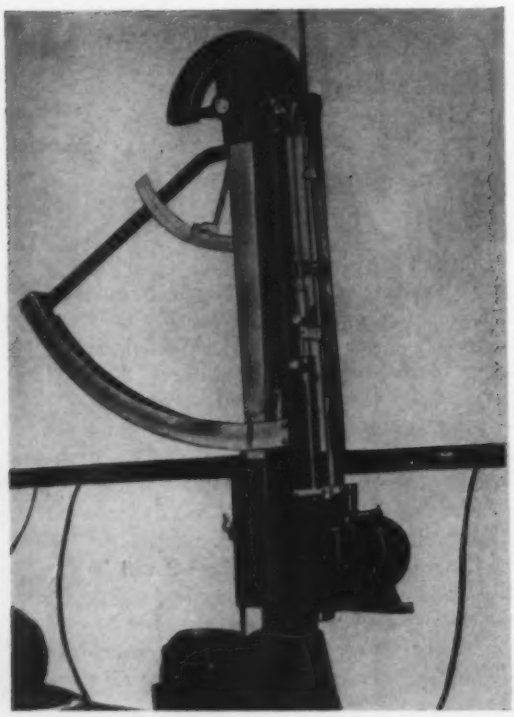
Elevator drop tests have been used, consisting of dropping the bag flat on one side at 24 in., flat on the opposite side at 30 in., with the sides alternated and the height increasing 6 in. per drop. This test is the single test found to correlate best with field performance.

Table I gives test data on the two bags mentioned above with respect to field performance. The elevator drop test is shown to be equal for the polyethylene and asphalt-laminated constructions at the same conditions. Moisture-gain data are also given.

In another substitution, also shown in Table I, where 20 lbs. per 3,000 sq. ft. of polyethylene was substituted for 30 lbs. of asphalt and 10 lbs. of paper, we note that the elevator drop test shows the

*Adapted by permission from an article, "Physical Performance of Paper Coated with Polyethylene by Extrusion," published in the April, 1956, issue of TAPPI magazine.

†Technical Director, St. Regis Paper Co., Deferiet, N. Y.



1. Schopper-type tensile tester.

bag with the polyethylene-coated wall to have consistently a 10-12% greater elevator drop number on separate testing occasions on separate lots of bags.

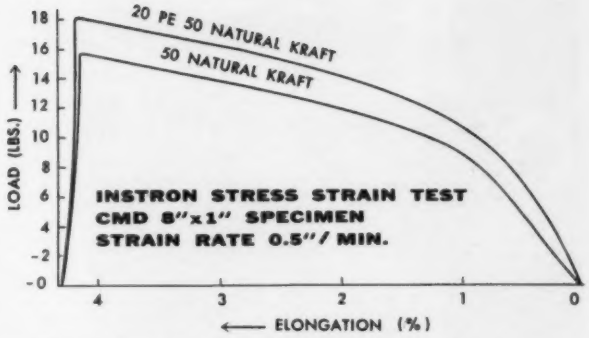
Paper vs. drop tests

Paper tests for strength have for many years consisted mostly of Mullen, tear and tensile, with consideration of the fold test on printing grades. Recently, new tests for paper strength which are better associated with the use of the paper have been developed. These newer tests use the concept that it is much more indicative of a paper's performance to measure the work or energy required to break the paper than to measure the force required to break the paper. The most recent small-scale testing device that we have used goes one step further and carries out the known fact that most packages do not break because of a single stress, but usually only after repeated stresses are applied as in a series of drops.

Three test procedures which we have used are presented here, with comments on a fourth which we have observed. Our primary purpose is to correlate these test procedures with field performance of paper, plastic-coated paper and plastic films.

(1) The first instrument used is the Schopper-type tensile tester known and used widely for testing paper and other thin flexible materials. Fig. 1 shows this instrument. One jaw is attached to the arm of a yoke holding a weighted pendulum. The other jaw is attached to a screw which is driven by a motor at a rate which produces a vertical movement of 12 in./min. Ultimate tensile is read in force units of pounds. This instrument has a mechanism which converts the change in length of our normal 8-by-½-in. specimen into per cent stretch. Government specifications for paper are stated in terms of 1-in.-wide strips; testing at this width has the advantages of reducing the effect of errors made in sample cutting and also of diminishing the statistical variations between individual tests. However, our Schopper tensile tests were done with ½-in-wide strips and the results are reported on this basis.

The Schopper tensile tester is widely accepted because the test for ultimate tensile is probably the most reproducible strength test for paper and because the values over the wide range of papers have



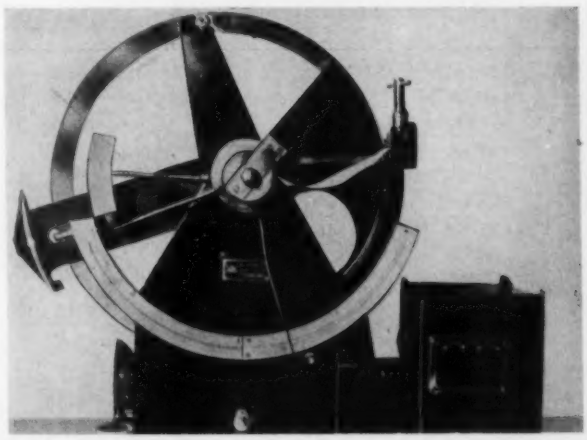
2. Stress-strain curves for coated and uncoated kraft.

Table I: Elevator drop test data

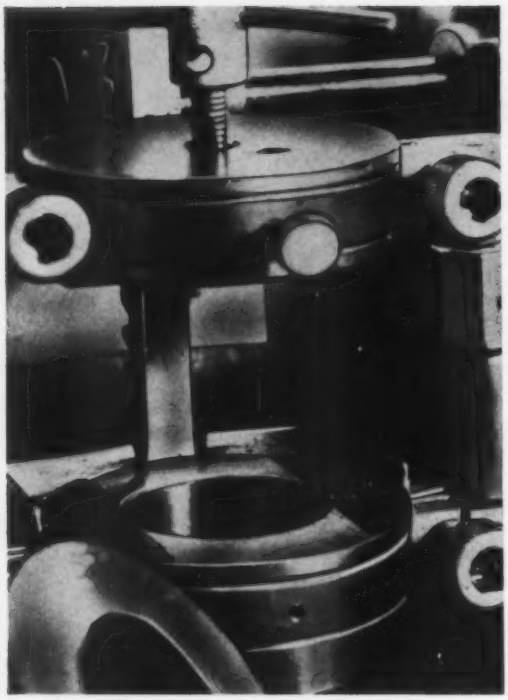
Bag construction	*Elevator drop test 78°F, 62%R.H. 100 lbs. Borax 25 bags tested*	*% moisture gain 100 lbs. CA CL_2 90 days*	*GFWVT (creased)*
1/60,1/90AL,1/60, 1/90AL,1/70	11.8	2.92	1.8
1/60,1/15PE50, 1/60,1/70	11.7	1.75	1.6

Bag construction	*Elevator drop test 67°F., 38%R.H. 100 lbs. Borax 20 bags tested*
1/40,1/90AL,1/40, 1/40,1/40	6.5
1/50,1/20PE50, 1/50,1/60	7.6
	78°F. 62%R.H.
1/60,1/90AL, 1/60,1/70	10.5
1/60,1/20PE50, 1/60,1/70	11.8

*"AL" identifies asphalt lamination; "PE" identifies polyethylene coating of the weight in lbs. per ream of 3,000 sq. ft. indicated by the figure preceding PE. All paper plies are kraft paper of the weight indicted.



3. Van der Korput dynamic tensile tester.



4. Paper-holding device of Frag tester.

considerable correlation with their physical performance. The instrument itself is durable and permits rapid, extensive and accurate control testing. However, this instrument has several shortcomings. From the physicist's point of view it neither measures stress at a constant strain, nor strain at a constant stress. The important measurement of stretch is subject to wide error if considerable care is not taken to keep the mechanism perfectly adjusted and the sample precisely clamped. The value of the stretch measurement has therefore been neglected.

A round-robin test series conducted on one sample lot of 50-lb. natural kraft by 14 laboratories resulted in a machine-direction stretch range from 1.3 to 2.2% and a cross-machine-direction stretch range from 2.7 to 4.1%. The corresponding tensile range for 1-in. test strips was 42.6 to 50.2 lbs. in the machine direction and 21.7 to 25.1 lbs. in the cross-machine direction. The stretch range is approximately 45% of the mean stretch. The tensile range is only 15% of the mean tensile. The relatively poor accuracy of the stretch measurement by the Schopper tensile tester in the hands of the average operator is readily apparent.

(2) A fine development in tensile testers for materials such as paper is the Instron stress-strain tester which incorporates a number of improvements.

Making use of the electronic measurement of load on a strain gauge, this instrument provides for measurement of change in stress at a constant strain rate. A choice of several different speeds is available for comparison of the effects of different strain-rate applications.

Graphic presentation of stress-strain curves is a feature which makes possible analysis of the manner in which the paper loads under strain as well as the intergrated work required to break the sheet.

Fig. 2 compares an observed Instron test on 50-lb.

Table II: Physical tests on uncoated, polyethylene-coated and asphalt-laminated papers

Material	*Tensile (lbs.)* MD	CMD	*Stretch (%)* MD	CMD	*Tensile X stretch* MD	CMD	*Van der Korput Dynamic tensile (KG-CM)* MD	CMD	*Frag Burst energy (KG-M^x 10^4)* MD	CMD
50 NK*	16.8	9.7	1.5	3.9	25.2	37.8	3.1	5.4	239	305
10PE50NK	17.5	10.2	1.6	4.5	28.0	45.8	3.5	7.5	408	531
% gain	4.1	5.1	6.7	15.4	10.1	21.2	12.9	39.0	71	74
50 NK	15.6	9.5	1.5	4.9	23.4	46.5	3.3	6.7	240	375
15PE50NK	17.2	10.8	1.7	5.4	29.3	58.3	4.3	8.9	429	569
% gain	10.1	13.7	13.3	10.1	25.2	25.4	30.3	31.4	79	52
50 NK	16.1	9.6	1.5	4.7	24.1	45.1	3.4	5.9	252	368
20PE50NK	17.5	10.7	1.7	4.9	28.8	52.3	4.2	8.6	422	592
% gain	8.7	11.4	13.3	4.3	19.5	16.0	23.5	45.8	68	61
90 AL	27.1	13.5	2.1	4.2	57.0	56.8	5.9	8.4	452	645
15PE50NK (creased)	—	—	—	—	—	—	—	—	515	515
90 AL (creased)	—	—	—	—	—	—	—	—	500	535

*NK identifies natural kraft paper.

Table III: Effect of ply interactions of polyethylene film and paper on Frag test

Material	Burst energy ($KG\text{-}M^x\ 10^4$) Machine direction Individual	Machine direction Combined	Cross machine direction Individual	Cross machine direction Combined
2 mil PE	980	—	840	—
4 mil PE	1,080	—	895	—
8 mil PE	1,620	—	1,290	—
2 plies 4 mil PE	2,160	1,890	1,790	1,280
4 plies 2 mil PE	3,920	2,880	3,360	1,800
2/40, 2/50 NK	1,118	1,300	1,002	1,380
"	848	1,430	1,056	2,120
"	1,028	1,470	1,152	2,320
"	1,106	1,416	1,096	2,240
"	1,089	1,260	1,171	1,940

natural kraft with a similar test on 50-lb. natural kraft coated with 20 lbs. of polyethylene. This figure indicates the general shape of the stress-strain curve characteristics of polyethylene-coated papers and it points out the fact that the effect of the coating takes place at a very low amount of strain.

The area under the curve represents the work available in 1-by-8-in. strips of paper strained at the rate of ½ in. per minute. Unfortunately, we have no quantity of data from the Instron testing device for use in this paper.

(3) Another instrument which we have had in operation for two years is the dynamic tensile tester manufactured by A. Van der Korput, Baarn, Holland. As may be seen in Fig. 3, this instrument utilizes the pendulum as a work applicator much in the manner of the familiar Elmendorf tear tester. With the pendulum at the center position, a strip of paper is stretched tight and fastened by the two clamps. The pendulum is then rotated counterclockwise until it reaches a stop at the end of the left-hand dial. The paper now takes the "S" shape shown in the picture. The pendulum is released and the result is read on the right-hand scale in terms of kg-cm. of work required to break the strip of paper. This machine can also be used to make tensile and stretch tests at conventional rates.

Let us compare these three instruments in terms of their rate of loading.

The Schopper type tensile tester has a jaw movement of $\frac{1}{60}$ of a foot per second. Since the pendulum clamp also moves, the actual strain rate is less than $\frac{1}{60}$ of a foot per second, or in the order of 0.01 ft. per second.

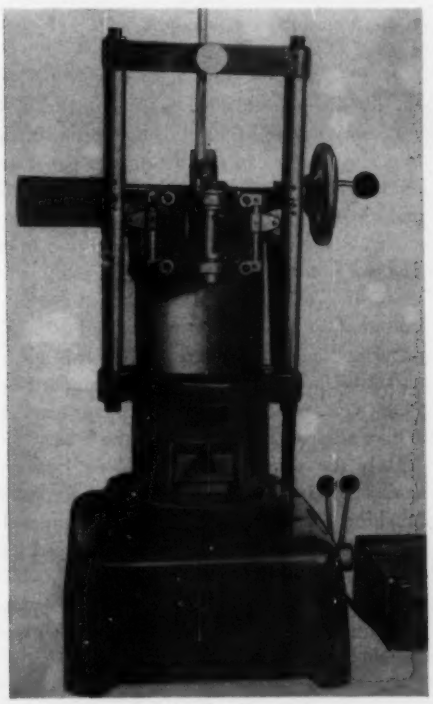
The Instron stress-strain tester has a maximum strain rate of 50 in. per minute or 0.069 ft. per second.

The Van der Korput dynamic tensile tester has a much faster strain rate, of 0.33 ft. per second. Even this rate is slow if we compare it with a bag of material dropped from a height of 3 ft. We can easily calculate the velocity of such a bag at impact to be 13.8 ft. per second. Shifting of contents and floor flex may lower the rate of wall strain from this figure, but nevertheless it is in the order of 30 times the strain rate of the dynamic tensile tester.

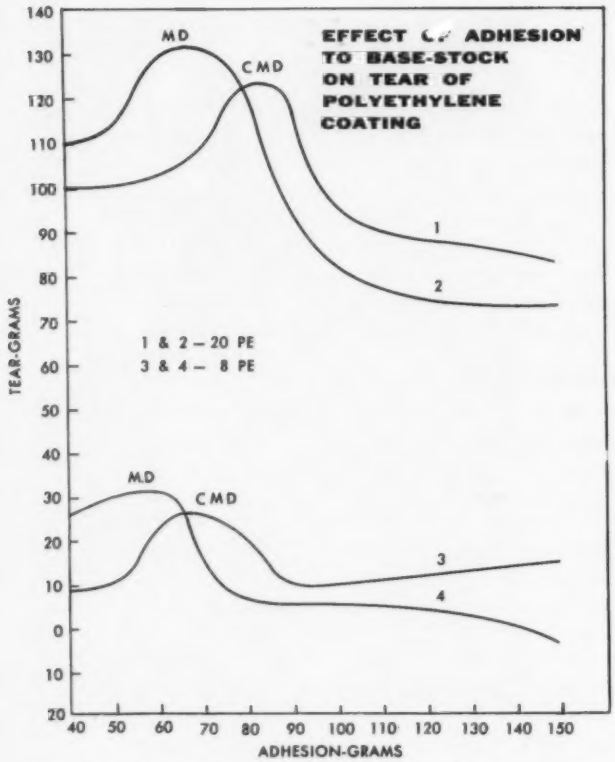
The Frag tester

Dr. Ludwig Ragossnig has designed a testing device, called the Frag tester, which has two advantages over the devices just considered. The normal speed at impact is 5.5 ft. per second. The test is one of repeated impact until failure occurs. These two statements immediately tell us that this testing instrument simulates the bag drop test to a much greater degree than the other test instruments just described.

In Fig. 4, let us look at a close-up of the paper-holding device of this Frag testing instrument. The lower center of the picture shows a conical cup. On two sides of the cup rim are mounted half-moon-shaped thin rubber disks. On top of this cup is placed a 2½-in. square specimen to be tested. The specimen is marked with lines to indicate machine



5. Over-all view of Frag burst-energy tester.



6. Relation of tearing strength to adhesion of coating.

direction and if the machine direction is to be tested, it will be placed on the cup with the lines at right angles to the straight edges of the rubber disks.

If the cross-machine direction is to be tested, the lines will be turned parallel to the disk edges.

A can is placed on top of the specimen. The bottom rim of the can contacting the paper shows in the lower left corner of the picture. It is entirely flat and circular, with a lightly cross-hatched face.

Fig. 5 shows an over-all view of the instrument. The can is filled through a hole in the top with 100 gms., or a multiple of 100 gms., of round steel or lead shot. A set screw forces it tightly against the paper and a framework makes the can and cup one unit, which is shown raised to a standard height of 14 cm. by a mechanically driven gear mechanism. It is then allowed to drop against the base.

Only the weight of the steel or lead shot acts against the specimen. When failure occurs, the shot breaking through into the cup are funneled into a tray underneath. The tray is arranged to teeter when filled. This actuates a microswitch which stops the machine so that the counter will register only the number of times the can drops with the test sample intact.

The results of the Frag test confirm mathematically deduced relationships expressed as follows:

(1) $D = \frac{F3}{3k}$ where "D" is the number of drops to failure,
"F" is the impact strength of paper,
"K" is the break factor characterizing the loss of strength under repeated stress.

(2) $E_B = \sqrt[3]{D}\,f\,s$ in which E_B is the absolute breaking energy,
"D" is the break number or drop number,
"f" is force (the weight of shot in the can) and "s" is the distance the can is dropped.

The first relationship tells us that the drop number is related to the cube of the dynamic tensile for papers of the same strength characteristics.

The K factor becomes an efficiency value indicating a better material as it becomes smaller.

The second formula gives us a numerical value—absolute breaking energy—for any material which is within the range of the Frag tester.

It is obvious that we could select a weight and distance which would break a material in one drop. By the same token, we could select a combination which would permit the drops to be excessively high in number.

The Frag tester is designed to allow 0 to 300 gms. of shot to be used and to give a distance dropped of 14 cm. or 21 cm. so that for a given material a drop energy level can be selected to give a drop number in the range from five to 50 drops.

Experience shows us that the statistical variation between individual tests is less in this range than at smaller or greater drop numbers. Breaks at a single drop, of course, give no information. We have found no reason to use quantities of shot other than 100, 200 or 300 gms. in the tests which we have conducted to date.

Results

Let us consider the results of these test methods as they apply to uncoated, polyethylene-coated and asphalt-laminated papers.

Table II shows tests conducted on six to 10 samples of each type. Each raw paper sample was related directly to a sample of polyethylene-coated paper. Asphalt-laminated samples are listed for comparison.

The first six columns list tensile, stretch and the product of tensile times stretch. We have done considerable work over the past years which proves the product of tensile times stretch has better correlation with bag drop tests than tensile or stretch considered separately. This is logical, for the stretch-tensile product is a work value and it requires a quantity of work rather than a given force to break paper or any other material.

The next column lists the dynamic tensile test re-

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"Before Rath changed its packaging, for example, Black Hawk luncheon meats had limited distribution. Now new Flex-Vac packages of transparent Olin Polyethylene laminated to cellophane allow Rath to pre-slice, vacuum package, ship farther, assure 'kitchen freshness', offer a wide variety rather than a few specialties, and let customers visually inspect Rath quality without opening the pack.

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Table IV: Test results on various plastic films

Material	Caliper (in.)	Tensile (lbs.) MD	Tensile (lbs.) CMD	Stretch (%) MD	Stretch (%) CMD	Tensile X stretch MD	Tensile X stretch CMD	Burst energy (KG-M^2 10^4) MD	Burst energy (KG-M^2 10^4) CMD
Vinyl film	0.0080	10.4	10.0	762	640	7,920	6,400	2,750	3,570
	0.0015	1.95	1.88	762	640	1,485	1,203	518	672
PE-1 (flat)	0.0015	2.6	1.4	512	1,139	1,317	1,590	815	393
PE-2 (flat)	0.0015	2.6	1.4	383	1,080	995	1,515	815	399
PE-3 (blown 1.3:1)	0.0015	2.9	1.6	424	889	1,230	1,420	840	784
PE-3 (flat)	0.0015	2.3	1.7	403	1,031	925	1,750	895	815
PE-4 (blown 1.3:1)	0.0015	2.6	1.1	384	802	1,000	882	840	745
PE-4 (flat)	0.0015	2.9	0.9	223	482	650	434	815	713
PE-5 (Zeigler)	0.0022	5.6	5.0	4	250	22	1,250	280	280
(blown)	0.0015	3.8	3.4	4	250	14	625	183	183
PE-5 (flat)	0.0018	5.0	4.5	3	300	15	1,350	480	445
	0.0015	4.2	3.7	3	300	13	1,110	400	371
PE-6 (Zeigler)	0.0006	2.5	2.2	—	300	—	660	320	336
(blown)	0.0015	6.3	5.5		300		1,650	803	842

sults using the Van der Korput tester. We have compared the results of this test on many papers, as well as the ones listed here, with the tensile-stretch product and find a rather constant correlation factor averaging 7.5 and varying in most cases from 6.5 to 8.5. The dynamic tensile gives one figure for work in a quickly operated test.

The Frag burst energy is given in the last column. This test, due probably to its unique intermittent loading at high rates but at moments less than that required to break the sample on a single application, has much less correlation with the tensile-stretch product than the dynamic tensile test. The very large percentage gains in burst energy due to polyethylene coating in comparison with the percentage gains in tensile-stretch product due to the coating are evidence of this fact.

Table V: Tear test data

Material	Tearing strength (gms.) M.D.	Tearing strength (gms.) C.M.D.	Per cent gain M.D.	Per cent gain C.M.D.
50 NK	120	137	—	—
10PE50 NK	134	157	11.6	14.6
15PE50 NK	141	168	17.5	22.6
20PE50 NK	149	177	24.1	29.2
90 AL	149	168	—	—

These gains in burst energy due to the coating make us feel that this test comes closer to the bag test than any other test. However, we indicated at the start of this paper that a wall of 15PE50 was substituted for two 90-lb. asphalt-laminated sheets with equivalent performance in the bag. The total burst energy of 15PE50 is approximately the same as one 90-lb. asphalt-laminated sheet. We have, therefore, not arrived at a paper test which shows why this one-for-two substitution should work.

Tests on creased samples of polyethylene-coated paper and asphalt-laminated indicate that both materials have no significant loss in strength when creased at a weight application of 6 lb./in. of crease.

A somewhat puzzling aspect of these tests is that the strength improvement given by a 10-lb. coating is not significantly lower than the improvement given by a 20-lb. coating.

A statistical examination of the data from these and other tests gives an approximate percentage coefficient of variation from the tensile test of 5%, dynamic tensile test 10% and Frag test 15%.

Comments

One of the effects which we have been curious about is the interaction which takes place between

[*Continued on page 212*]

DOES YOUR PACKAGE MEET THE EYE TEST?

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Q Question & A Answers

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Cracking of polyethylene

A question about the cracking of polyethylene sheet which appeared in this department in the February, 1956, issue has resulted in several letters giving more information about this phenomenon.

One letter, received from a polyethylene resin manufacturer, contributed these very useful additional facts on the subject:

"The discussion on the cracking of polyethylene sheet in your Question and Answer Department greatly concerns us, as manufacturers of polyethylene resins. While the wording of the question indicates that the problem is not serious at present, any failure of polyethylene in service reflects upon the entire industry.

"It is our opinion that the failure described is due to what is called environmental stress cracking.

"There is probably no physical property in which commercial polyethylene resins vary more than in their resistance to environmental stress cracking. Fortunately, the American Society for Testing Materials method for testing this property is easy to do and requires no expensive equipment, so that any concern of reasonable size can protect itself from this sort of failure by specifying stress-crack resistance in polyethylene and testing for it.

"Since F_{50} values in the ASTM environmental stress-cracking test will vary anywhere from a few hours to several weeks on commercial resins, it is hard to pick up a reasonable specification. From results so far, we would judge that an F_{50} value of about a day would eliminate the worst materials without unduly reducing the potential number of suppliers for the resin.

"It should be of interest for your readers to know that in those applications where the problem exists, mainly where relatively heavy sheets are folded in use, there is a means of eliminating it."

Sticking of frozen-food wraps

Q. *We use aluminum foil laminated to wet-strength paper as a wrapper for frozen vegetables. This is a printed wrapper and it serves very well for asparagus, broccoli and similar stalky vegetables. The only complaint we have is that the wrapper sometimes sticks to the vegetables even after thawing.*

Can you tell us if there is a simple and positive way to prevent this adhesion of wrapper to product?

A. The easiest way to prevent paper from sticking to a damp product would be the use of parrafin wax as a coating and saturant for the paper. Since your wrapper will be used for frozen foods, the wax formulation should be modified either by mixing waxes or by the use of resins to improve the durability and prevent cracking at low temperatures.

Another answer would be to use a thin coating of polyethylene on the paper which could be applied by the extruder coating process and would be between ½ and 1 mil in thickness. Such a polyethylene coating would have good durability at low temperature and would increase the strength and function of the wrapper. Also a polyethylene coating of this kind could be used to heat seal the wrapper, which might provide better protection by preventing loss of moisture.

It would also be possible to use certain resin-wax mixtures applied as a hot-melt coating that would make heat sealing possible, as well as prevent sticking. A wax coating would be the lowest-cost answer to your problem, but polyethylene or resin-wax coatings could provide additional advantages to justify the increased costs.

New polyethylene resins

Q. *There have been claims that some of the newer type (so called low-pressure type) polyethylene resins will make packaging films with better properties than present resins (so called high-pressure type). However, we have never seen samples of such new and superior packaging films.*

Can you give us some idea of how the newer low-pressure polyethylene resins compare with present type of films? Your opinion on this question will be greatly appreciated.

A. There is very little available data on the direct comparison of a typical "low-pressure" polyethylene resin film for packaging uses. Apparently very little film has been made from the newer resins and this has not been available for testing by package users. At the present state of the development and production of this newer class of polyethylene resins it might be very difficult to select a "typical" resin that would have packaging interest.

Current opinion is that these newer resins are of maximum interest in injection molding and for special applications. Also it is believed that if these newer resins were made into film, their properties would be quite different from commercial polyethylene films now on the market. A major difference would be in the increased stiffness in film from the newer class of resins, a much lower elongation and a higher heat-sealing temperature.

However, at present, it is too soon to draw any conclusion about these differences, first, because such film could have a different field of use than present film and, secondly, because the resin producers have not had the opportunity to evaluate thoroughly the capabilities of this new process for producing many different types of resins.

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Successful selling in modern food stores demands distinctive, colorful packages. You can meet this challenge and gain competitive advantages for your package—or family of packages—by capitalizing on the many decorative and functional *extras* offered by Du Pont "Cel-O-Seal" bands. The flexibility of these attractive bands makes them ideal for use as a secondary closure or label —or both—on a wide variety of glass packages.

We would like to show you how custom-designed "Cel-O-Seal" bands can benefit *your* packaging program. Write, or send a labeled container. Du Pont packaging specialists will band it, make recommendations, return it for your inspection. No charge, no obligation. Address: E. I. du Pont de Nemours & Co. (Inc.), "Cel-O-Seal" Section, 10424 A—Nemours Building, Wilmington 98, Delaware.

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Equipment and materials

New hard-box cigarette packer

announced by American Machine & Foundry Co., 261 Madison Ave., New York 16, to be known as the 3-129 Hard Box Packer, is the first of American manufacture and can be attached to existing cigarette packaging equipment. The new development, according to AMF, is to aid cigarette

companies in meeting the demand for hard-boxed packages similar to the Marlboro package, with a better, stronger, siftproof package, produced more economically and efficiently on existing equipment. The design of the new "Snapak" package which the AMF machine produces was devised by The Gardner Board & Carton Co., Middletown, Ohio. The announced price of the new machine when attached to existing equipment is about one-third that of comparable foreign machines. It reportedly has an efficiency

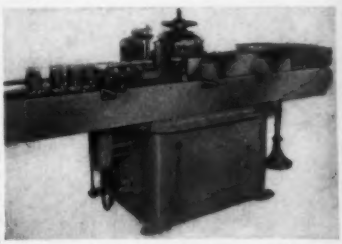
range of 90 to 95%, can turn out from 100 to 120 hard-box cigarette packs per minute, depending on weight of paperboard stock, finish and printing, and takes up little more than one-third the floor space of competitive machinery. One operator, says AMF, can be trained to run the machine in a few days. The company claims better quality control of the "Snapaks" in terms of rejection of sub-standard packages and better register of the paperboard material in forming the pack. Positive control of registration by the AMF machine is achieved by wrapping first the foil, then the paperboard around a hollow mandrel, forming the shell, whereas previously designed machines employ a straight-line folding mechanism which wraps the foil and cardboard blanks around the grouped cigarettes lengthwise. (See "That Cigarette Box," MODERN PACKAGING, Jan., 1956, p. 94.) After the shell is made, the new machine completes the pack by inserting the cigarettes in the completed box.

Special inks for labeling and coding

the surfaces of usually hard-to-print substances have been announced by The M. W. Kellogg Co., Jersey City, N. J. Known as Kel-F printing inks, they are high-temperature and chemically resistant, fluorocarbon-type pigmented to adhere to polyethylene, vinyl and other plastic surfaces.

A fast labeler for round bottles

said to be capable of speeds from 60 to 165 per minute has been announced by New Jersey Machine Corp., 16 St. & Willow Ave., Hoboken, N. J. The new model, known as the Pony 165, features suction labeling, non-stop rotary operation, a circulating glue supply, micro-glue control, shockless bottle feeding and a rotary discharge table. Complete change-over for a new bottle label



reportedly can be accomplished in 25 minutes. Able to handle any stable round bottle from ½ to 3½ in. in diameter, the labeler is equipped for labels ranging from 1⅛ in. wide by ½ in. high up to 5½ in. wide by 5 in. high. Labels are extracted from a magazine by vacuum suction and held so that the glue can be applied independently. This results, according to the manufacturer, in elimination of glue seepage and accurate registration.

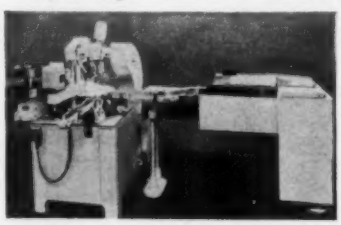
A no-deposit jar for dairy products

such as cottage cheese, yogurt and sour cream has been added to the line offered by Dairy Container Div., Owens-Illinois Glass Co., Toledo, Ohio. Seen at the far left in the picture, the new half-pint jar differs in appearance from the squat half-pint and tall half-pint jars already available. It reportedly has

the proper height to prevent turning over in soaker-washer pockets and makes for ease of handling on high-speed filling equipment. Its appearance conforms with that of other packages in the line. It will fit into regular dairy delivery cases.

Automatic insertion of rubber stoppers

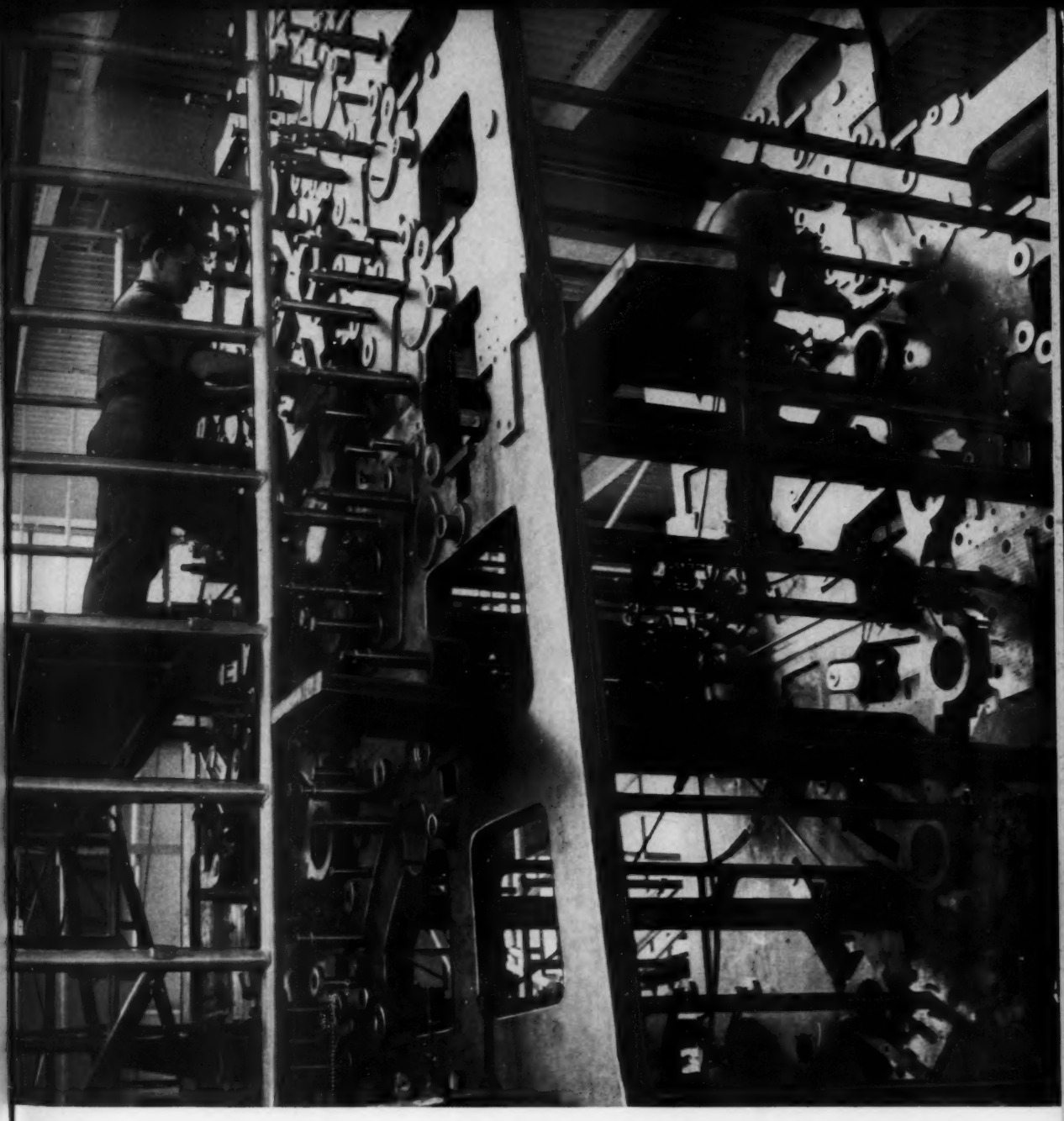
in vials at speeds up to 50 per minute is said to be possible on a new English machine announced by Autopack, Ltd., Birmingham 3, England. Known as the Autopack Bunging Unit, the device is incorporated into the Autopack automatic vial machine, which fills small glass vials or syringes with liquid



or powder, then places any type of rubber stopper in place and finally spins on an aluminum cap. All standard vial sizes can be handled, with all parts coming in contact with the contents being made of stainless steel and easily detachable for cleaning or sterilizing.

Production of metallized plastics

has been announced by Foiltone Products, Inc., a new wholly owned subsidiary of National Research Corp., 70 Memorial Dr., Cambridge 42, Mass. The company has been formed for commercial production of the corporation's re-



That the breadwrap may be a better breadwinner

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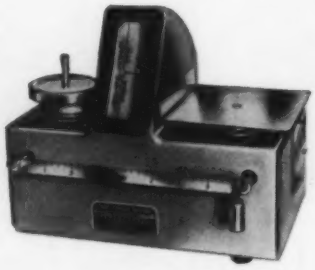
SHADOGRAPH SCALES are available in a number of different models for weighing a few grams up to 75 pounds. Type 4100 shown above, 4200 at right.



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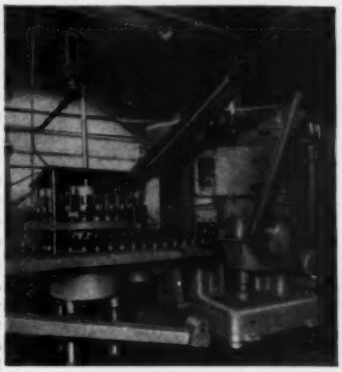
Equipment and materials

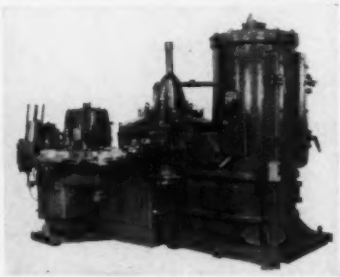
search achievements in continuous vacuum metallizing and will also turn out a line of metallized papers. First products to be offered are metallized polyester film and cellulose acetate, with metallized polyethylene and vinyl films to be introduced later.

Three new can-closing machines

have been introduced by American Can Co., 100 Park Ave., New York 17. One of them, the 210-8R, is a self-contained can-revolve closing machine for double seaming round cans that is said to be capable of 1,000-per-minute speeds. It is equipped with eight seaming units in a revolving cage and can be arranged for close hook-up to most types of fillers, using either steam- or gas-flow closure methods. Cans ranging from 202 to 211 in diameter and 200 to 508 in height can be handled.



A second machine, the 410-6R2, can close up to 600 round cans a minute, using six seaming units in a similar revolving cage. It is designed to handle cans from 202 to 404 in diameter and 108 to 708 in height.



A new closing machine for vacuum coffee cans, the 500-1RV, reportedly will operate at a speed of 120 or more a minute, handling cans from 202 to 502 in diameter and 2⅞ to 7 in. in height. It is a complete unit, with automatic feeding of can and covers, which will mark, clinch, vacuumize and double seam the round cans.

Inexpensive re-usable plastic containers

for packaging dairy products have been announced by Nalle Plastics, Inc., 108 W. Second Ave., Austin, Tex. Produced by a new automatic process that is said to bring their cost down to the level of paper containers, the Naltex containers hold one pint, with a rounded bottom that makes it possible for them to be nested in a minimum of space when empty. Rounded corners on the bottom are also reported to make removal of contents easier. Lids can be printed with the packager's label.

Two all-purpose masking tapes

have been announced by Permacel Tape Corp., New Brunswick, N. J. Permacel 708 is recommended for use on all high-speed production lines; Permacel 718 is suggested for general industrial masking. Both may be used as sealers for canisters, small cartons and similiar containers. They

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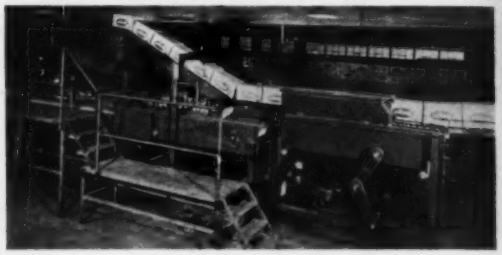
Equipment and materials

utilize flat 30-lb. kraft paper backings, specially processed and impregnated, with a transparent, rubber-based, pressure-sensitive adhesive. The tapes are reported to have an average dry tensile strength of 20 lbs. per inch of width, tear resistance of 3½ lbs. edge tear and average thickness of 6.6 mils.

An unloader-unscrambler for empty cans

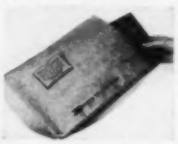
announced by A-B-C Packaging Machine Corp., Quincy, Ill., features a new patented unloading mechanism. Reshipper cases or cans are placed upside down on a gravity conveyor and fed into an unloader, where flaps are opened and cans



are moved gently onto an unloading belt. Empty cases are then set upright and moved to the other end of the packaging line. Empty cans are conveyed through a separating mechanism which channels and spaces them onto a series of moving belts, which take them under a set of hooks to align the cans in proper position. Finally, a can collector places them into single file for filling and closing.

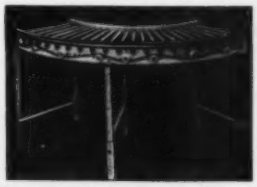
A cushioned, water-resistant 'book bag'

made from green kraft paper in 12 sizes has been announced by Jet-Pak, Inc., 859 Summer Ave., Newark 4, N. J. Pre-scored lines along the tops of the bags are reported to make packing easier and the laminated kraft from which the bags are made is said to keep out moisture of all kinds. The packages are reported to have been approved by the U. S. Post Office for use on all types of Fourth Class books and printed matter.



Power-driven curved roller conveyors

built to maintain uniform package flow around 90- and 180-deg. corners have been introduced by Harry J. Ferguson Co., Jenkintown, Pa. The units are chain driven by a ½ h.p. motor or conveyor head shaft, with the chain engaging sprocket teeth permanently attached to the conveyor roller. In this way, the manufacturer says, package congestion and jam-ups on turns are eliminated and movement up to 90 ft. per min. is possible. The power curves are available with high or low rollers and transparent plastic chain guards to enclose moving parts.



A new type of polyethylene film

that is reported to be pinhole-free has been announced by Chase Bag Co., 309 W. Jackson Blvd., Chicago 6. The new film is made by fusing together two simultaneous draws of polyethylene while the surfaces are still molten, so that each reinforces the other. In this way, the occurrence of pinholes or tiny weak spots through both draws is very unlikely and there is said to be less chance for tears to

Everybody benefits from Swift's EASY OPEN case sealing adhesive because it seals fast, seals efficiently, but opens easy!

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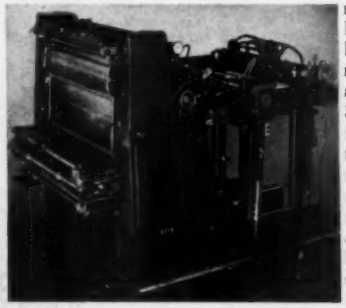
Equipment and materials

occur during filling and handling. The new polyethylene film, known as Polytex-phf, is recommended for use in inner liners for bags, drums, boxes and barrels.

New high-speed 22-by-34-in. offset press

has been announced by American Type Founders, Elizabeth, N. J. Said to be capable of printing speeds up to 7,000 impressions an hour, the ATF-Mann N-135 will handle sheets ranging from 11 by 15 in. up to 23 by 36 in., with a maximum printing area of 22½ by 35½ in. Stock from onion skin to 0.028-in. card may be used. A number of new features have been added to make high printing speeds possible, including cylinders that are mounted in phosphor bronze alloy bearings, a feeder swing-arm mechanism that is full cam-controlled in both directions and an adjustable suction drag roller to control the sheet at delivery.

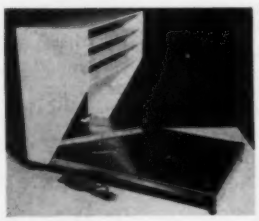


American Type Founders has also introduced the ATF Green Hornet, a new web-fed commercial offset job press, said to be capable of producing up to 25,000 11-by-17-in. impressions per hour, using either two colors on one side or one color on each side.

The company also recently became the exclusive representative in the United States for the Koenig & Bauer line of sheet-fed and rotary letterpresses, sheet-fed gravure presses, rotary typographic presses and web-fed gravure presses.

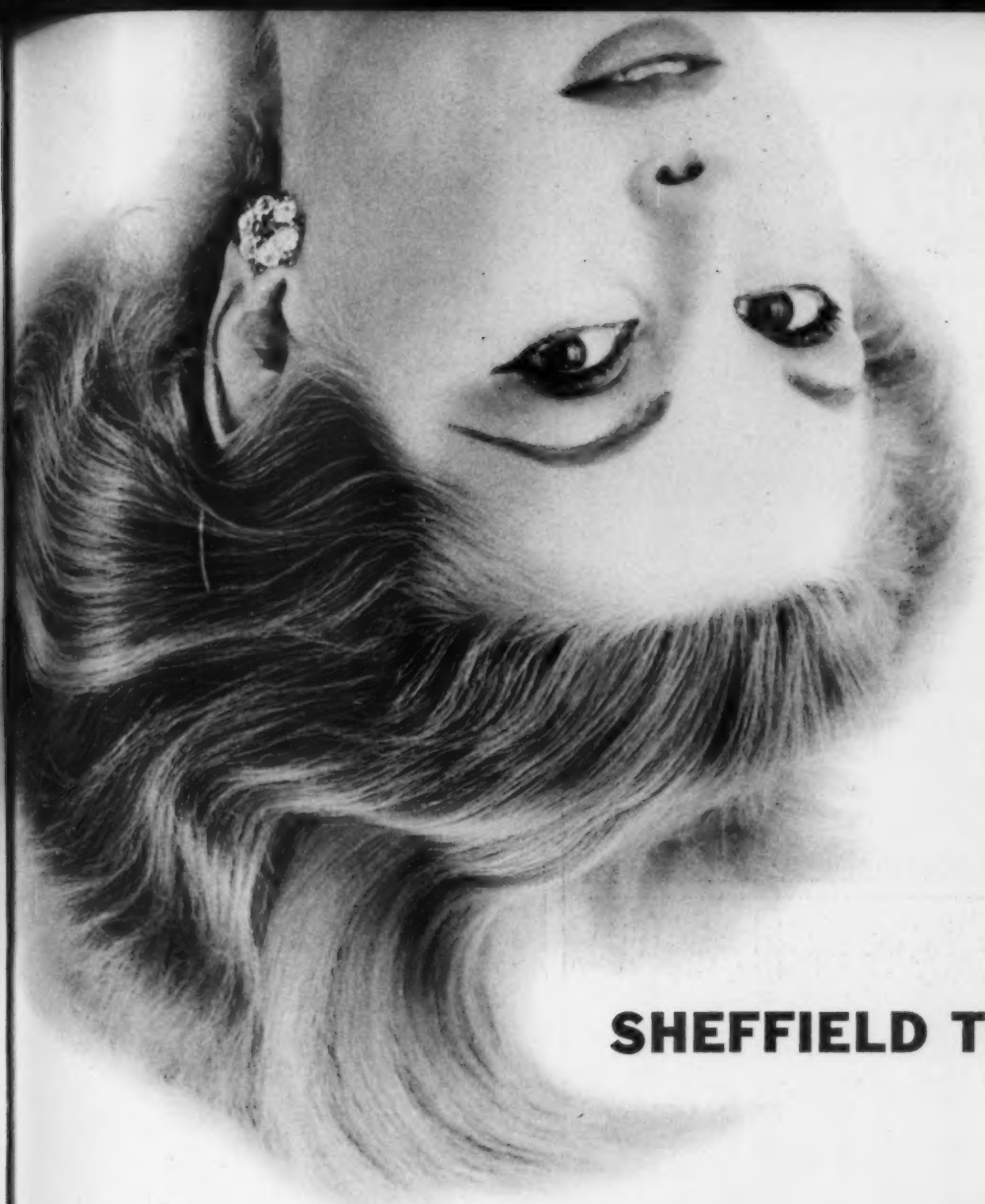
A dome-shaped hotplate for film sealing

introduced by Cleveland Heat Sealing Equipment Mfg. Co., 7704 Guthrie Ave., Cleveland 2, Ohio, is said to increase sealing speed by 22%. Unlike conventional flat hotplates, the new domed model is designed to fit into the bottom of BFD trays and virtually to eliminate any need for repeated rubbing during the heat-sealing process. The gently rising dome reportedly also reduces tearing of the film and its thin outer edge cuts down heat transference to surrounding surfaces. The new domed Kwik-Wrap hotplates are available in 9-in. round and 6-by-9-in. rectangular shapes, and as round plates set into 15-by-24-in. stainless steel "boards" upon which the actual wrapping may be done (shown here).



Magnetic conveyor rails

which can convert existing belt conveyor lines into non-electric magnetic conveyor-elevators with inclines as steep as 75 to 80 deg. have been announced by Eriez Mfg. Co., Erie 6, Pa. The Magna-Rails are designed to aid in transporting ferrous materials such as cans, lids, metal parts, etc. They are available in standard lengths of 3, 4, 5 and 6 ft., which measure 4 in. wide by $1\frac{15}{16}$ in. high, and are placed directly under the belt to be magnetized. Two strengths are available: Model MCR-3112, designed for conveying average ferrous objects of medium size such as can covers or caps, at speeds up to 85 ft. per min.; and Model



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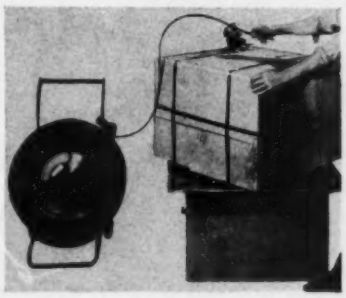
Equipment and materials

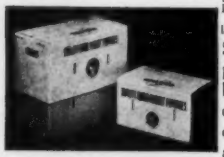
MCR-316, for handling more difficult materials at greater speeds.

A new table top for metal strapping

operations has been announced by Signode Steel Strapping Co., 2600 N. Western Ave., Chicago 47. It is designed to make it possible for the operator to stand in one position and rotate heavy containers with a minimum of effort. The table top may be mounted on a permanent or portable base or set directly into a conveyor line. It contains 61 one-inch metal ball casters which extend ¾ in. above its flat surface, mounted 3 in. apart in a staggered pattern. Optional equipment is a metal strap guide to facilitate feeding the strap.

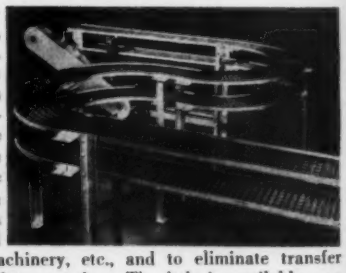


Corrugated cartons for potatoes



introduced by Fibreboard Products, Inc., 1789 Montgomery St., San Francisco, are designed to protect the vegetables against bruising and the harmful effects of light. Called Tater-Toters, the containers are made in 20-, 30- and 50-lb. sizes, with easily removed, fully telescoping covers. They may be used with automatic filling and sealing operations, or may be field packed by the grower.

A new flexible conveyor belt



introduced by Ashworth Bros., Inc., Winchester, Va., is a modification of the company's flat wire belt. Called Omniflex, the belt is said to have the ability to make turns within 2½ times its width, in order to go around corners, poles, machinery, etc., and to eliminate transfer plates and dead-plate transfers. The belt is available currently in widths from 4 in. to 4 ft., in mesh of ½ by 1 in.

Non-fading, gold-colored aluminum

announced by Kaiser Aluminum & Chemical Corp., 1924 Broadway, Oakland 12, Calif., is now available in a variety of shades and tones. The source of the gold color is said to be built into the metal itself and can be brought out without the use of dyes or other coloring materials by anodizing under controlled conditions. Colors produced are said to be sunfast, with the aluminum having greater corrosion protection and resistance to wear.

A volumetric filling attachment

reported to make possible vacuum packing for powdered products that is both highly accurate and dust-free has been announced by Stokes & Smith Co., Sub. Food Ma-

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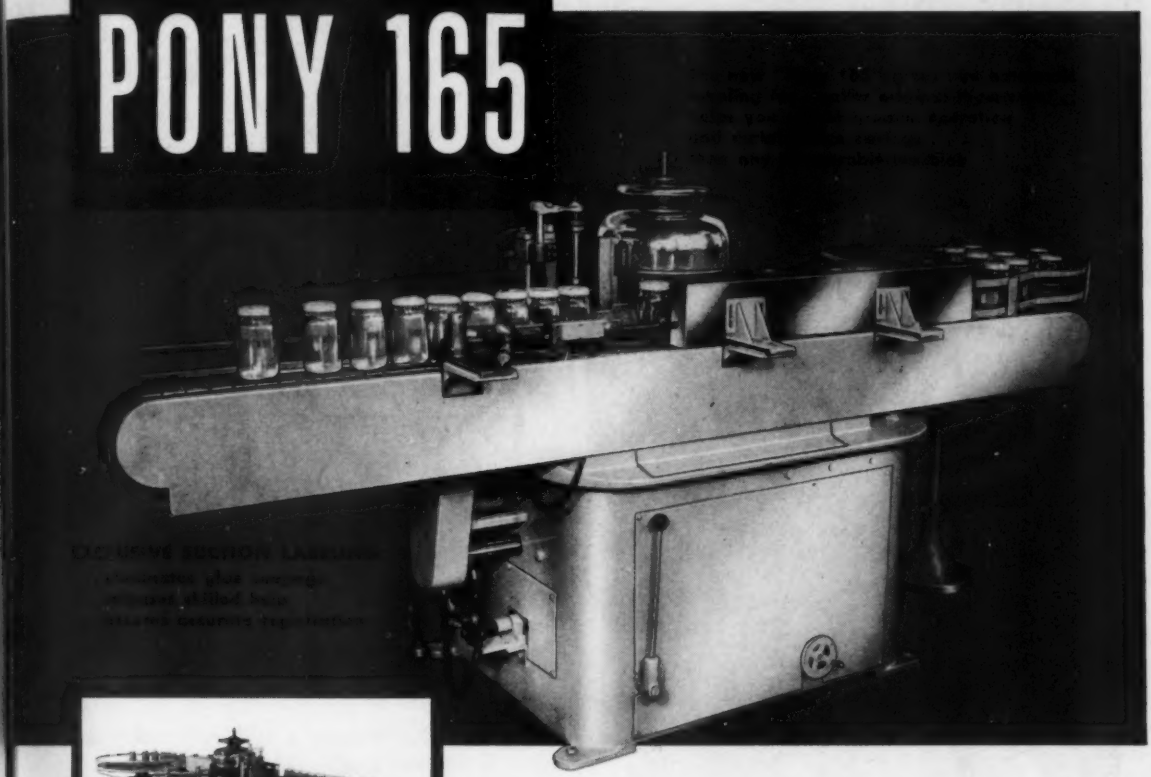
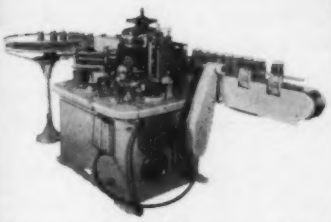
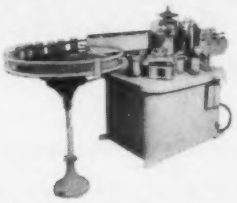
PONY 165





Conveyor and feed screw set up positive "locked in" spacing for accurate label registration.



Rotating accumulating table may be placed to left or right, can be used as terminal point for case packing.

The "Pony 165" gives you speed, precision labeling, lower operating and labor costs... all for less than $9,000, the lowest price at which a labeler of this calibre has ever been offered.* Suction labeling assures you of top package appearance. No label slippage, no glue seepage, no loss of adhesion, no registration problems.

This money-saving new labeler takes any stable bottle ½" to 3½" in diameter. Maximum label size is 5½" wide by 5½" high; minimum, 1⅛" wide by ½" high. Built-in variable speed control. Only twenty minutes for a label change, five minutes for a bottle change.

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The J&L line includes all types of Closures and Finishes. Bright, colorful decorations may be reproduced to your specifications. Heavy-duty ICC Drums. Light-gauge Drums. 55, 30 and 15 gal. capacity and 100-lb. Grease Drums. Lightweight Drums for Chemical and Powdered Materials. 1-10 gal. capacity Steel Pails for Foods, Chemicals, Oils.

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STEEL CORPORATION — *Pittsburgh*
CONTAINER DIVISION
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chinery & Chemical Corp., 4900 Summerdale Ave., Philadelphia 24, Pa. Known as the Auger-Vac, it can be used with the Stokes & Smith EG Universal Filler. When a vacuum is drawn on any rigid container through a simple attachment assembly at the delivery tube of the filler, the desired fill is accurately delivered by the auger. When the fill is completed, the vacuum is automatically released.

Corrugated shipper for men's clothing

developed by Interstate Container Corp., Glendale, N. Y., holds as many as 18 garments on built-in hanger holders. Designed to cut down on shipping-room handling and keep the clothing in better condition during transit, the Multi - Sta - Prest container is made from a single piece of corrugated. The carton is stored flat and folded on pre-scored lines when ready for use. Garments on hangers fit on a two-flanged hanger bar clamped over the top of the box and are held snugly in place to retain their original press. Four sizes of containers are available.

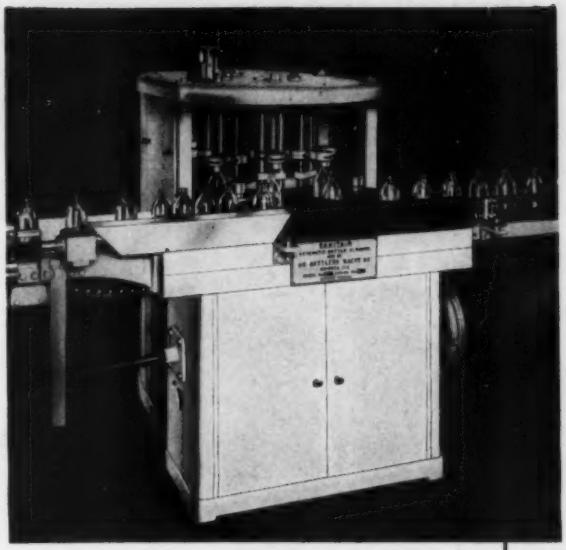
A 12-can check-weighing machine

especially designed for verifying the weight of take-home cartons of a dozen cans of beer has been announced by the Hi-Speed Checkweigher Co., 605 W. State St., Ithaca, N. Y. Known as Model S-12, it operates in continuous motion for automatic weighing of 12-can cartons as they come down the line, immediately rejecting incomplete cartons or single loose cans.

Speeds up to 60 cartons of 12-oz. cans are said to be possible. On smaller-sized packs, such as six-can cartons of 12- or 16-oz. cans, the speeds can be increased to 75 a minute. The units are equipped with feeding conveyors and can be adapted to use on single-line or duplex operations.

Improved multiple liquid fillers

made by Arthur Colton Co., 3400 E. Lafayette Ave., Detroit 7, have been announced. The new models are said to have filling accuracy of less than 1% error by use of a new positive, precision metering cylinder and valve assembly that can be adjusted to meet filling requirements for liquids having different specific gravities and viscosities. They provide a metered volumetric fill with a built-in needle valve that is said to give a suck-back, no-drip control. Range of capacities handled on the fillers is from 5 cc. to 16 fl. oz., at speeds of 80 to 480 per minute, filling from four to 12 containers at once.



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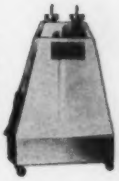
More and more, packaging engineers are experiencing new economies gained by air-cleaning new containers . . . economies either in the packaging process or in the marketing of the product, or both.

Air-cleaning costs so little . . . the lack of it can cost so much! Once a Sanitair is synchronized into the production line, its operation is entirely automatic. Operating safeguards are automatic. Speed is adjustable to any line operation. Quick changeover for all sizes of containers. Handles all-glass sprinkler top, wide mouth and aerosol valve finishes.

Learn why there are more Sanitairs in use today than any other automatic air cleaners and consider how profitable a Sanitair can be to your business. Write for the Sanitair Bulletin.

Specialists in Liquid Filling and Container Cleaning Equipment



THE EZ AIR CLEANER. A portable machine adaptable to standby service on peak loads. Air-cleans two containers at a time. Capacity 20 to 40 containers per minute. Can connect to user's air supply. Built-in air compressor optional. Write for EZ Bulletin.

U. S. ROTARY RINSER. Rinses both insides and outsides of containers. Can employ water, steam or air. Containers are protected against neck-chipping as they rest on shoulders. Handles any size or shape bottles or jars. Write for Rotary Rinser Bulletin.

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Plants and people

National Starch Products, Inc., New York, has announced the following series of changes in its sales organization. **S. F. Thune**, presently a vice president and manager of the Midwest Di-

Thune

Murphy

DeWolfe

vision, is being promoted to sales vice president of the National Adhesives Division, with headquarters in New York. **Frank Murphy**, replaces Mr. Thune as manager of the Midwest Division, with headquarters in Chicago. Mr. Murphy has had broad experience with National, serving in Plainfield, Montreal and in New York. **R. A. DeWolfe**, New York adhesive sales supervisor, is being promoted to manager of the Pacific Coast Division. **Larry Horan**, presently Midwest supervisor for paint and related resin sales, is being promoted to manager of the Pacific Coast Division.

Richard S. Light has been elected vice president in charge of manufacturing for the **Plax Corp.**, Hartford, Conn. Mr. Light, who joined the company last year, had been vice president in charge of procurement and production for the Snow Crop Division of Clinton Food and, before that, manufacturing manager for all Lever Bros. plants.

Robert T. Addis has been named manager of market research for the packaging division of **Reynolds Metals Co.** He will be located at the Reynolds sales headquarters, 2500 S. Third St., Louisville, Ky.

Addis

Cliff Ray, packaging sales representative for Reynolds for four years, has been named assistant manager of the company's general packaging market, handling sales of foil beverage labels, caps, closures, foil wraps for confectionery products and aluminum beer barrels. He replaces **Richard W. Chapman**, who is now regional packaging sales representative in San Francisco.

General sales offices of **Reynolds Aluminum Co. of Canada, Ltd.**, are now located at 1405 Peel St., Montreal. The new aluminum sheet and foil plant built by **Reynolds Philippine Corp., Inc.**, near Manila, P. I., has been formally dedicated. Annual production capacity of the $3,000,000 plant is reported at 25 million pounds of sheet and foil.

Stokes & Smith Co., Philadelphia, has appointed three new sales representatives in the Eastern territories: **Carl M. Robbins**, to the Metropolitan New York area as sales engineer for Stokes & Smith paper box equipment; **J. K. Holland**, to the Southeastern territory as sales engineer for the entire line of Stokes & Smith packaging and paper box equipment; **Wendell A. Clough, Jr.**, to the New England territory as sales engineer for the entire line of the firm's packaging and paper box equipment. Mr. Clough replaces **R. C. Smith, Jr.**, who has been transferred to Philadelphia. **Richard M. Muny** is now service engineer in New England.

Willard J. Dixon has retired as vice president of the **St. Regis Paper Co.**, New York, pursuant to the company's retirement plan. Mr. Dixon will continue as a director and will be available to the company as a consultant.

Dixon

St. Regis has appointed **Frank D. Instone** as assistant sales manager of packaging equipment of the Multiwall Packaging Division. Mr. Instone will assist in the sale of multiwall bags and packaging equipment to the feed industry in the Midwest and will headquarter in the company's Chicago office.

A new San Francisco office has been opened by St. Regis Paper Co. in the Russ Bldg., 235 Montgomery St. Consolidated in the new office are headquarters of the West Coast district of the Kraft Division and the Western district of the Multiwall Packaging Division. **Clark S. Johnson**, West Coast district sales manager of the Kraft Division, has transferred his office from Los Angeles to the new San Francisco location. A new Los Angeles sales office has also been opened. Consolidated in this office are Southern California sales offices for the Multiwall Packaging Division, in charge of **Warren Gannon**, and the Kraft Division, in charge of **Yale Weed**. The New Los Angeles office, in Suite 333, California Teachers Assn. Bldg., 1125 W. Sixth St., will also serve as headquarters for **Ronald Erskine**, West Coast representative of the Printing, Publication and Converting Paper Division, and **E. R. Kemper**, West Coast Panelyte Div. representative.

The W. R. Grace Co., New York, has established a new division and realigned existing chemical operations. The former **Dewey & Almy Chemical Co.**, of which **Hugh S. Ferguson** was president prior to its merger with the Grace company and until his election as executive vice president of Grace, is now divided into three divisions of the parent company. The Dewey & Almy operations, under that name, will be headed by **George W. Blackwood** as president and **William L. Taggart, Jr.**, as executive vice president. **The Cryovac Co. Division** will have **Bradley Dewey, Jr.**, as president. **The Dewey & Almy Overseas Co. Division**, responsible for all exports as well as for the manufacture and sale of all products overseas, will be headed by **Henry L. Gilbert** as president. The new division of the company is the **Polymer Chemicals Division**, headed by **T. T. Miller** as president and **Elwyn E. Winne** as vice president. A polyethylene plant for this division is under construction at Baton Rouge, La.

Paul E. Nelson has been appointed sales manager of the **Chase Bag Co.'s** New Orleans branch. He replaces **J. A. Sutherlin**, who has been promoted to manager of export sales.

Sherman Stambaugh has been appointed director of publicity and press relations for **Celanese Corp. of America**, New York.

First units of the new Celanese cast sheeting plant at Belvidere, N. J., are now in production. The new plant will make available increased quantities of cellulose acetate cast sheeting in thicknesses from 0.003 to 0.020 in.

Shulton, Inc., New York, manufacturer of toiletries, fine chemicals and pharmaceuticals, has purchased a new plant in Toronto, Canada, which will serve as headquarters for all Shulton sales and manufacturing throughout the Dominion. Full production is expected to get under way this month.

The Vacuum Forming Corp., Port Washington, N. Y., manufacturer of heavy machinery for plastics, has appointed the **Rainville Co.**, Garden City, N. Y., as sales representative in the New England area, northern New Jersey and New York.

Pak-Rapid, Inc., manufacturers of automatic packaging equipment, is now occupying its new plant on Elizabeth St., West Conshohocken, Pa.

A substantial increase in the capacity of the Tenite polyethylene plastic manufacturing facilities of **Texas Eastman Co., Div. of Eastman Kodak Co.**, has been announced by **Eastman Chemical Products, Inc.**, Kingsport, Tenn. Total output after additional equipment is installed at the Longview, Tex., plant will be 40,000,000 lbs. annually. Construction will be completed later this year.

A new polyvinyl chloride resin plant with a production capacity of about

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You'll find more big-press features than you can shake a stick at on this little 2-color MANHASSET flexographic press. And they are all there to fulfill the particular requirements of a particular user.

The features incorporated in this space-saving 12" precision printing machine are the kind usually seen only on presses costing many thousands of dollars more. They are features that assure high-speed, high-quality printing and slitting of paper and board packaging specialties—features like constant tension controls . . . shear-cut slitter . . . infra-red radiant drier . . . automatic center-core twin-rewind or coreless single-shaft rewind with web-divider . . . electronic variable speed drives . . . interchangeable splash-proof ink fountains . . . simplified operating control panel . . . unique roll-handling devices that permit locating of parent and printed rolls out of the way within the press frames.

This "different" press is another example of MANHASSET's unique but practical approach to the individual printing equipment needs of converters and package printers. It's another example that demonstrates why—if your problem calls for flexible, imaginative and forward thinking—you should put it up to MANHASSET.

APS Jr. Press Close-up view of shear-cut slitter

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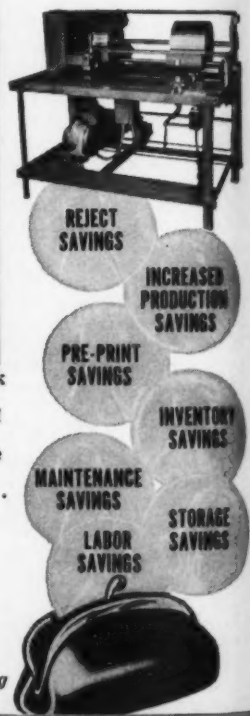

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Plants and people

12,000,000 lbs. a year is being built at Leominster, Mass., by the Borden Co., New York. The new facility will adjoin Borden's present Monomer Dept. plant, which produces polyvinyl alcohol and polyvinyl acetate. In a move to coordinate production and developmental work, the Monomer and Polyco Departments of Borden's Chemical Division have been combined to form the Polyco-Monomer Department. **E. J. Sullivan** heads the new operation. Main sales offices will be at 350 Madison Ave., New York. Also announced is the appointment of **Gordon E. Ketring** as assistant to the Western sales manager of Borden's Chemical Division.

The Atlanta Paper Co., Atlanta, Ga., has named **Robert L. Gerson** director of public relations and sales promotion. **William A. Simpson** has been named successor to Mr. Gerson as advertising manager. Creation of the new post is aimed at facilitating service and developing merchandising techniques for products in multi-unit packages.

Gerson

Simpson

Pneumatic Scale Corp., Ltd., Quincy, Mass., announces an agreement with New Jersey Machine Corp., Hoboken, N. J., by which Pneumatic will be licensed, under New Jersey's Re-issue Patent No. 24097, in connection with the manufacture of the Jagenberg Lightning I and Lightning II labeling machines.

R. G. Knapp has been appointed West Coast division manager of Standard Packaging Corp., New York. E. J. Farina, retiring general manager, has been retained by the firm in the capacity of management consultant.

Peter Partition Corp., manufacturer of cardboard partitions, is doubling its space and expanding its facilities for the second time within 10 years. The new location of the company is at 124 Boerum Place, Brooklyn 1, N. Y.

Fulton Bag & Cotton Mills, Atlanta, Ga., has elected **Robert O. Arnold** as chairman of the board and president. Three divisional vice presidents have been elected: **Norman E. Elsas**, vice president and general manager, Mills Division; **Clarence E. Elsas**, vice president and general manager, Fabrics Division; **Jason M. Elsas**, vice president and general manager, Bag Division. Also elected as vice presidents are **Fred G. Barnet** and **E. Monroe Hornsby**. E. A.

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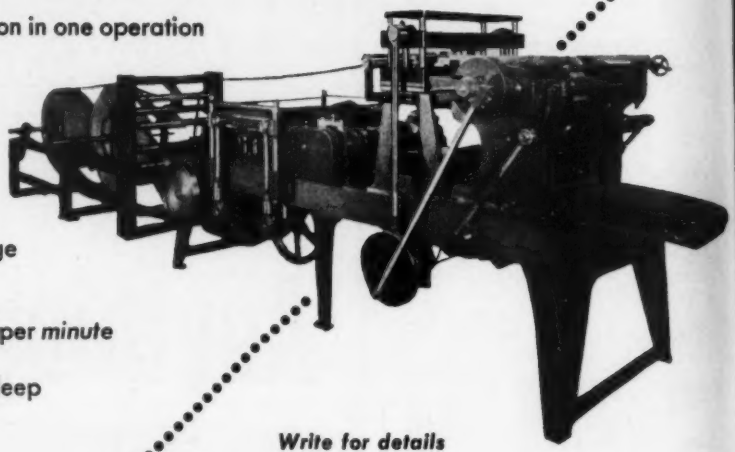

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Plants and people

Cronheim is now secretary and treasurer. Under a new divisional organization, headquarters for both the Mills and Fabrics Divisions will be in Atlanta, while Bag Division headquarters well be centered in New Orleans.

Paul E. Fischer has been appointed director of sales engineering for the Champlain Co., Inc., Bloomfield, N. J., manufacturer of high-speed rotary printing equipment. Mr. Fischer has had wide experience in the industry and holds several patents in connection with packaging and paper conversion machinery. He was formerly with the E. G. Staude Mfg. Co.

Fischer

C. B. Kreiger has been appointed Pittsburgh division sales manager for the Fort Wayne Corrugated Paper Co., Fort Wayne, Ind. Mr. Kreiger succeeds R. M. Jones, now division manager.

Wilbert L. Wetzel has been named manager of the Pittsburgh sales division of Stone Container Corp., Chicago, in charge of sales in western Pennsylvania. His headquarters are at 3000 Grand Ave., Neville Island, Pittsburgh. James B. Foster has been named plant engineer and John B. Shearer industrial engineer at the company's Mobile paperboard mill division. Nathan Nahin, salesman for Stone Container's Chicago corrugated box division, has been chosen for a Distinguished Salesman's Award by the Sales Executives Club of Chicago for outstanding performance in 1955.

Gerald J. Fahey has been named sales representative in the Greater Detroit area for Vulcan Containers, Inc., Bellwood, Ill., manufacturers of steel shipping drums and pails. Mr. Fahey will be located at 6432 Cass Ave., Detroit 2.

The Denver Flexible Packaging Co., printer and converter of film bags and wraps, has moved into expanded new quarters at 690 Bryant St., Denver, Colo.

Paul Wilkinson, superintendent of the paper mill division of the Williamsburg, Pa., mill of West Virginia Pulp & Paper Co., has retired after more than 46 years of service with the company.

D. A. Forsberg, president of Forsberg Paper Box Co., Madison, Wis., and his associates have purchased the stock interests formerly held by Mr. & Mrs. W. A. Frautschi in the company. New officers, who are also directors, are: D. A. Forsberg, president and general manager; F. S. Brandenburg, vice president and treasurer; D. W. Blanchar, secretary and assistant treasurer; R. S.

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Avery Labels are *self-adhesive*, which means you get *extra* economy. With patented Avery dispensers, you label with *production line speed*. No moistening is required, and they won't dry out, pop off, curl or peel. Your message on an Avery Label reaches the consumer neat and attractive—yet it's easily removed without soaking or scraping, and without damage to any surface. Find out how *you* can use Avery Labels in your business!

With Avery dispensers—manual or electric—you can get the most economical and efficient labeling for your job. Up to five times faster *than ordinary labeling methods!*

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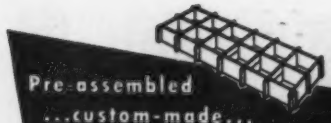

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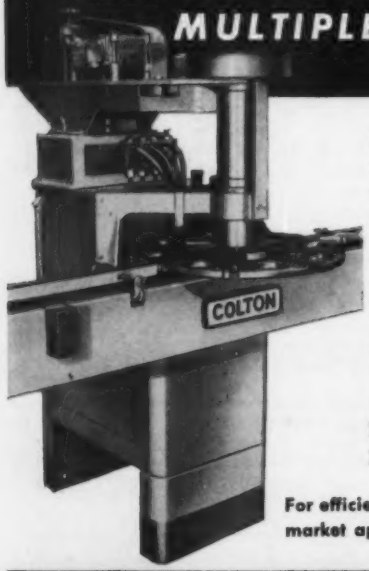

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Plants and people

Elliott, vice president for sales; **L. C. Forsberg**, vice president for production.

Vallens

Milton Vallens has been appointed general sales manager of Glass Containers Corp., Hayward, Calif.

Harold F. Hacke has been appointed as Southern district sales manager for the company. His office will be located in Los Angeles.

James J. Melead has been promoted to assistant chief engineer of Dilts, converting equipment division of **The Black-Clawson Co.** at Fulton, N. Y. **Balfour Clark**, formerly with the company's Paper Machine Div., has been appointed sales engineer for the Dilts Division. **Bernard Majani** has joined the Dilts sales staff.

Marquard J. Anderson has been elected to the board of directors of **Lynch Corp.**, Anderson, Ind., makers of packaging machinery. Mr. Anderson succeeds **Richard H. Werbe**, who has resigned to take charge of Lynch Corp.'s wholly owned subsidiary, Lynch International, Ltd., in London.

The Crossett Co., Crossett, Ark., has promoted **A. B. Moore, Jr.**, to production manager of its Paper Mill Number Two and has named **Jack E. Meadows** to the newly created post of assistant paper division manager. Mr. Moore will assume the duties of **D. B. Kuhe**, now with Hudson Pulp & Paper Co.

Moore

Meadows

The Arabol Mfg. Co., New York adhesive manufacturer, has opened a warehouse in Tampa, Fla., at 101 N. 12 St.

Robert U. Haslanger has been elected vice president and general manager of **Escambia Bay Chemical Corp.**, Cambridge, Mass. The company operates a plant at Pensacola, Fla., where construction is now under way for a 30,000,000-lb. polyvinyl chloride resin plant to be completed by the end of this year.

Jack Bradt has been appointed sales manager of the Truck Division of **The Howe Scale Co.**, Rutland, Vt.

The U. S. Bottlers Machinery Co., Chicago, is now represented in Washington, Oregon, Idaho and Montana by **The Duncan Equipment Co.**, 506 Broadway, Seattle 22, Wash. **Roy C. Duncan** is in charge. **The Frank J. Bott Co.**, Box 74, Ogden, Utah, repre-

sents the company in Utah. **Rouel W. Bartley**, 2144 N. Campbell Ave., Tucson, Ariz., represents the company in Arizona, New Mexico and Nevada.

John B. Gilbert, former general sales manager, has been named vice president, **Zellerbach Paper Co.** He is also a director of the company.

George L. N. Meyer, Jr., has been appointed a vice president of the **George J. Meyer Mfg. Co.**, Cudahy, Wis., and general manager of its Economic Machinery Co. division. Mr. Meyer, who has been assistant general manager of the Economic Machinery division since 1951, succeeds **Ernest A. Oliver**, who has retired.

Meyer

Extruders, Inc., Hawthorne, Calif., has installed new equipment which will more than double the company's capacity to extrude polyethylene film.

Milton C. Beard has been named vice president and director of **Private Brands, Inc.**, Clifton, N. J., contract packaging firm.

Windmoeller & Hoelscher, Lengerich, Germany, makers of packaging machinery, have enlarged their main plant by 50% to enable increased production. Sole representative in this country for the firm is **H. H. Heinrich Co.**, New York.

Contracts have been awarded for construction of the building for **Kaiser Aluminum & Chemical Corp.**'s new aluminum food container plant at Wanatah, Ind. The building, to occupy 45,000 sq. ft. of space, will cost more than $1,000,000.

Maynard M. Bartley has been appointed Chicago plant manager for **Rap-in-Wax Paper Co.**, Minneapolis.

Ves Hoffman has been appointed St. Louis district sales manager of **Crown Cork & Seal Co.**, covering Kansas, Missouri, southern Illinois, western Kentucky, western Tennessee and northern Arkansas.

The 70th anniversary of the founding of the **Oswego Falls Pulp & Paper Co.** in Fulton, N. Y., was recently celebrated. For 38 of the 70 years, the **Oswego Falls Corp.** has been the parent company of the **Sealright** companies.

Continental Can Co., New York, has made arrangements with the Southern Pacific Co. to acquire about 40 acres of industrial property in San Leandro, Calif., for future development. The property will make possible future expansion of facilities for the manufacture of metal containers.

Continental has announced the following staff changes in the Metal Division: **L. Ylvisaker** has been promoted to general manager of the division's research and development department, Chicago. **E. L. Hazard** is director of

[*Continued on page 170*]

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Automatic CAMPBELL WRAPPER

WRAPS ALL SHAPES — Square, round, oval, oblong, flat or irregular . . . the Campbell Wrapper packages them all with equal ease and speed.

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. . . wraps up to 300 units per minute!
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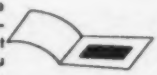
As part of a fund raising campaign, United Cerebral Palsy used a toy plastic airplane for the promotion. The necessary identification and "pitch" were supplied by an ABLE-STIK label.

An office furniture manufacturer cut his product identification costs considerably when he switched from expensive metal name plates to low cost, easy-to-apply ABLE-LABELS.



Airlines go for the ABLE-STIK type of label. Ever notice what happens when you change your reservations? Instead of the expense of making a new ticket, all the clerk does is to cover up the old data with an ABLE-STIK form that simulates the basic ticket. Simple, inexpensive and fast . . . good reasons for usage.

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Plants and people

[*Continued from page 167*]

staff. **W. K. Neuman** has been named manager of new products. **R. S. Hatfield** is general manager of sales. In the Eastern division, **R. D. Heaviside** has been named general manager of the northeastern district; **S. M. Bixler**, general manager, the mideastern district; **J. S. Devlin**, general manager of the southeastern district. In the Pacific division, **C. F. Marquard** has been named general manager of the south Pacific district; **J. W. Broomhead**, general manager of the north Pacific district.

Thatcher Glass Mfg. Co., Inc., Elmira, N. Y., has appointed **Reginald L. Burd** as vice president and general manager of the company's Pacific Coast Division. His headquarters are at Saugus, Calif., location of Thatcher's Pacific Coast factory.

Burd

Thatcher's McKee Div. offices have been moved to the Flatiron Bldg., 174 Fifth Ave., New York.

Robert J. Clark has been appointed assistant to the sales manager, **Arthur Colton Co.**, Detroit, manufacturer of packaging machinery.

Kleartone Transparent Products Co. has opened a new plant and general offices at 686 Main St., Westbury, N. Y. New printing and bag-making machinery has been installed and an art department and package designing division have been established.

Black

Donald E. Black has been named sales training manager for **Acme Steel Co.**, Chicago. Mr. Black, formerly manager of the Customer Service Dept., has been with the company since 1939. He will be responsible for planning and coordinating sales training.

Plans for a new $20,000,000 manufacturing operation, to be located in the Baton Rouge, La., area have been announced by **The Dow Chemical Co.**, Midland, Mich. Plans for the new Louisiana operations are in line with the company's efforts to "decentralize future expansion where economically feasible." The new $1,100,000 Midland laboratory building for research in biochemistry is now in operation.

Alton L. Gray has been named assistant general sales manager, the **Pfaudler Co.**, Rochester, N. Y. **Edgar N. Fox, Jr.**, has been named Rochester district sales manager to replace Mr. Gray. Replacing Mr. Fox is **Robert C. Silver**, who is now field sales engineer in the Rochester-Niagara district.

Donald L. Rheem has been elected chairman of the board of **Rheem Mfg. Co.**, New York. **A. L. Walker** has been elected executive vice president and will continue as vice president in charge of Rheem International. **Emerson S. Ronk** has been appointed vice president of administration.

Dyke

The 1956 Honor Award of the University of Maine Pulp and Paper Foundation has been presented to **George E. Dyke**, president of the **Robert Gair Co., Inc.**, New York. The award was "in recognition of his years of service to the paper industry."

Karl von Gaa has been appointed special sales representative for the carbonated beverage department of **Gair's Folding Carton Div.**

Quality Park Box Co., St. Paul, plans to construct a new million-dollar plant on a six-acre tract adjacent to the highway midway between St. Paul and Minneapolis.

The Dierks Paper Co., a subsidiary of Dierks Forests, Inc., will use a Black-Clawson Fourdrinier paper machine in its new kraft liner board mill to be built at Pine Bluff, Ark. The machine is designed to produce 150 tons per day.

Cornell Paperboard Products Co., Milwaukee, Wis., has agreed to acquire all the outstanding capital stock of **Superior Paper Products Co.**, Marion, Ind., producer of paper plates for home, bakery and industrial use.

Standard Folding Trays Corp., Trip-Tite Tray Div., has opened a West Coast regional office at 5525 Wilshire Blvd., Los Angeles 36. **Richard L. Seaton** has been named special West Coast packaging consultant.

Scharff

Fred J. Scharff, sales representative of **The Specialty Papers Co.** of Dayton, Ohio, has been appointed manager of the company's San Francisco branch plant. Mr. Scharff replaces **Harrison Berkeley**, who has returned to the company's home office.

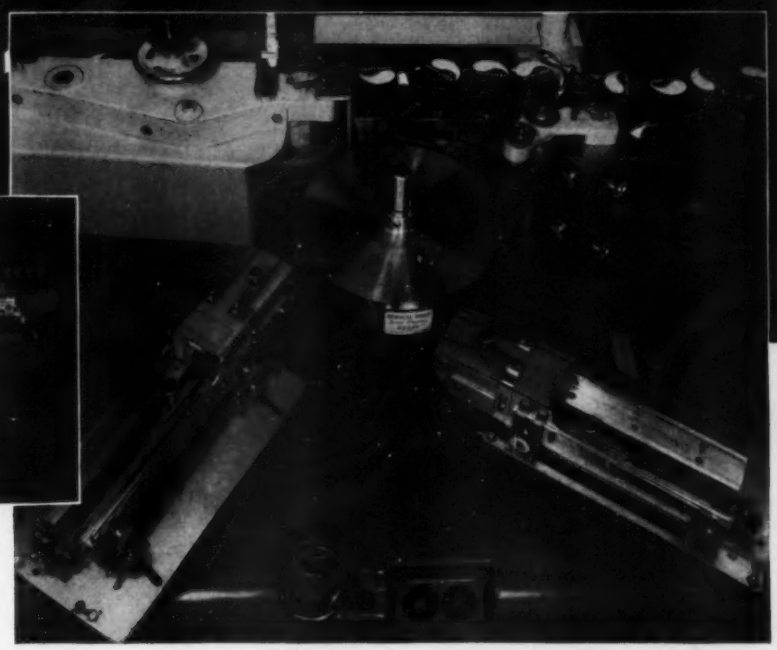
Al Thanhauser has been appointed to the sales staff of **Milprint, Inc.**, Milwaukee, Wis.

James H. Flynn has been named divisional service manager for the Closure & Plastics Division of **Owens-Illinois Glass Co.**, Toledo, Ohio. **Charles A.**

Lightning Labelers

DESIGNED FOR TOP SPEED APPLICATION

on round containers



Speeds up to 300 per minute

Write for Bulletin 129

Operating on an all mechanical, constant motion principle, these machines speed the labeling operation through their simplification of design and their own uniquely direct method of application.

A helical intake feeds and spaces the containers which travel straight through on a platform chain conveyor.

From a vertical gluing roll a uniform film of adhesive is transferred to segments of a glue cylinder. These glue faced segments then "pick off" labels from the reciprocating magazines. The glued labels are directly transferred to the containers by means of a rotating transfer cylinder. The containers then roll between pressure belts and a stationary pad which properly "wipes" down each label.

Straight through without stop or pause — that's the answer to the Lightning Labeler's (1 and 2) smooth, uninterrupted delivery of containers with accurately registered, smoothly adhered labels. If your container is round, the Lightning's a machine you should look at, by all means!

PNEUMATIC SCALE CORP., LTD., 82 Newport Avenue, Quincy 71, Massachusetts. *Also: New York; Chicago; Dallas; San Francisco; Los Angeles; Seattle; Leeds, England. Canadian Division: Delamere & Williams Company, Ltd., Toronto.*

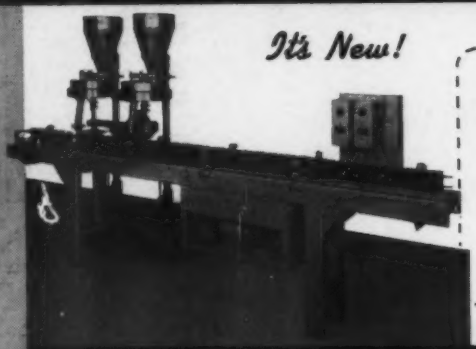
PNEUMATIC ***Packaging and Bottling Equipment***

PLAN NOW to include *plastics* in the products you'll be making tomorrow. See the *new* materials . . . *new* processes . . . *new* equipment in the plastics field at the NATIONAL PLASTICS EXPOSITION, New York Coliseum, June 11-15. Write now for tickets—on your company letterhead, please. No general public admissions.

Plastics shaping tomorrow's products

at the new New York Coliseum
7th National Plastics Exposition sponsored by:
The Society of the Plastics Industry, Inc., 67 W. 44th Street, New York, N. Y.

AUTOMATIC FILLMASTER



It's New!

For Dry or Semi-Dry
Free Flowing
or Slow Flowing
Products

. . . fills any rigid container accurately at speeds up to 240 A MINUTE

The AUTOMATIC FILLMASTER gives you high speed, without sacrificing accuracy. The exclusive FILLMASTER vibratory action fills every container with precise weight accuracy, within 1% for most products. All the single operator has to do is load the empty containers on the right hand end of the conveyor—FILLMASTER does the rest. The complete operation is controlled from a central control panel placed conveniently within the reach of the operator. Powders, coffee, bread crumbs, nuts, candies, popcorn, etc.—the FILLMASTER handles every product with kid gloves to prevent damage. It's completely sanitary and noiseless too.

High priced machine? No, the down-to-earth cost will surprise you for such a heavy duty machine. If you need continuous,, unbroken, high speed filling, get all the facts about the AUTOMATIC FILLMASTER, three models to choose from. Write today for literature.

ALSO ASK US ABOUT OUR SEMI-AUTOMATIC BAG AND CARTON FILLERS

STUYVESANT
ENGINEERING COMPANY
107 Stuyvesant Avenue, Lyndhurst, N. J.

Plants and people

Arthur succeeds Mr. Flynn as service manager at O-I's St. Charles, Ill., plant.

Bemis

Conant

F. G. Bemis, Jr., and **S. D. Conant** have been elected directors of the **Bemis Bro. Bag Co.**, St. Louis, Mo. **F. M. Ewer** and **R. D. McAusland**, former Bemis directors, recently retired.

Eric de Kolb, art and packaging director for Helena Rubenstein, Inc., and Gourielli, Inc., for the past nine years, has resigned to open his own packaging design firm at 20 E. 53 St., New York. Mr. de Kolb will be a consultant on packaging and industrial design.

William Kerber, a veteran of 39 years of continuous service with the **Package Machinery Co.**, East Longmeadow, Mass., has retired on the company's pension plan. Mr. Kerber started with the company in 1917 as a bench hand and rose to become one of the firm's top servicemen. Mr. Kerber plans to reside in Elmhurst, Ill.

Raymond Stevens, a vice president of **Arthur D. Little, Inc.**, Cambridge, Mass., industrial research company, has been elected president of the company. He succeeds **Earl P. Stevenson**, president since 1935, who is now chairman of the board. Mr. Stevens, the company's third president in 70 years, joined the firm in 1920. In May, the American Institute of Chemists will present its Gold Medal to Mr. Stevens in recognition of his contributions to "the wider understanding of the essential procedures for the management and operation of industrial research."

Stevens

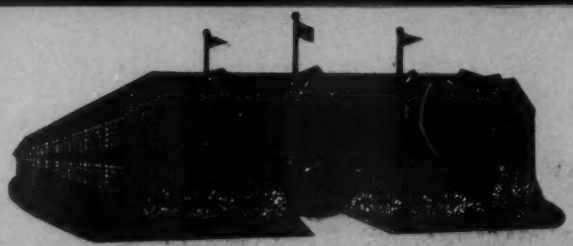
Directors of **Container Corp. of America**, Chicago, and **The Mengel Co.** have approved a plan for the exchange of Container common stock for shares of common stock of Mengel not presently owned by Container. The plan contemplates an offer by Container to exchange one share of its common stock for each two of Mengel common stock.

The Ottawa River Paper Co., Toledo, Ohio, has announced the following organizational changes. **William H. White** is vice president of operations and general division manager. **Fred T. Renshaw** is sales manager of the corpora-

[*Continued on page 176*]

Chaspec

GREENWICH, CONN.



MAKERS OF SALES STIMULATING DISPLAYS
AND PACKAGES OF DISTINCTION SINCE 1920

R C A
SQUIBB
GORHAM
KOLYNOS
DUTCH BOY
AIR FRANCE
LUCIEN LELONG
RICHARD HUDNUT
PARK AND TILFORD
JOHNSON AND JOHNSON
ELIZABETH ARDEN
GARCIA Y VEGA
HIRAM WALKER
COCA-COLA
HOUBIGANT
SEAGRAM
CARSTAIRS
CUTEX
CIRO

A few of the
distinguished names
served by

Chaspec

SI
MA
BULO
CALVE
FRIGIDA
CONGOLE
ALFRED DU
GENERAL EL
HELENA RUBI
NATIONAL DIS
ANHEUSER B
WESTINGHO
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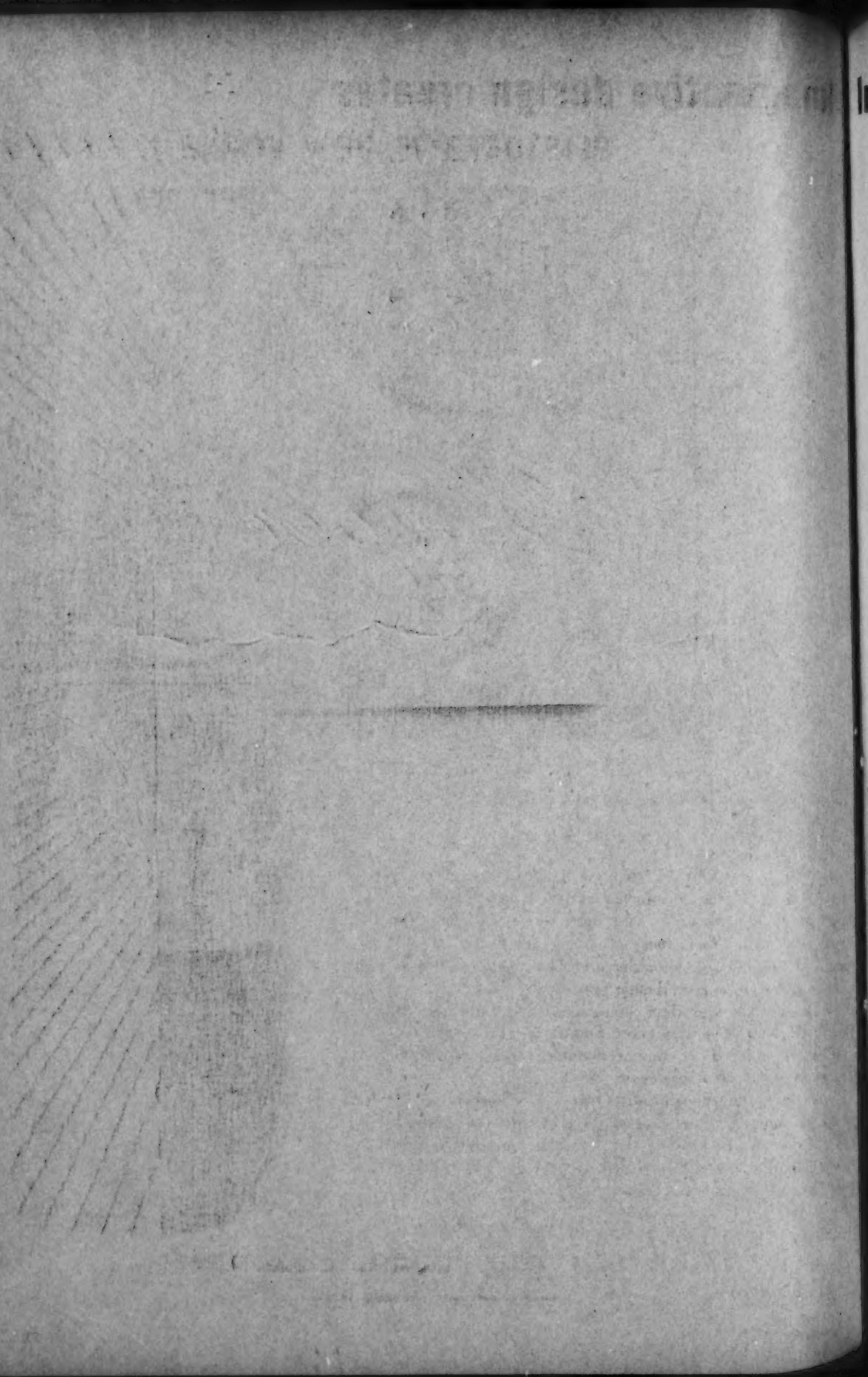
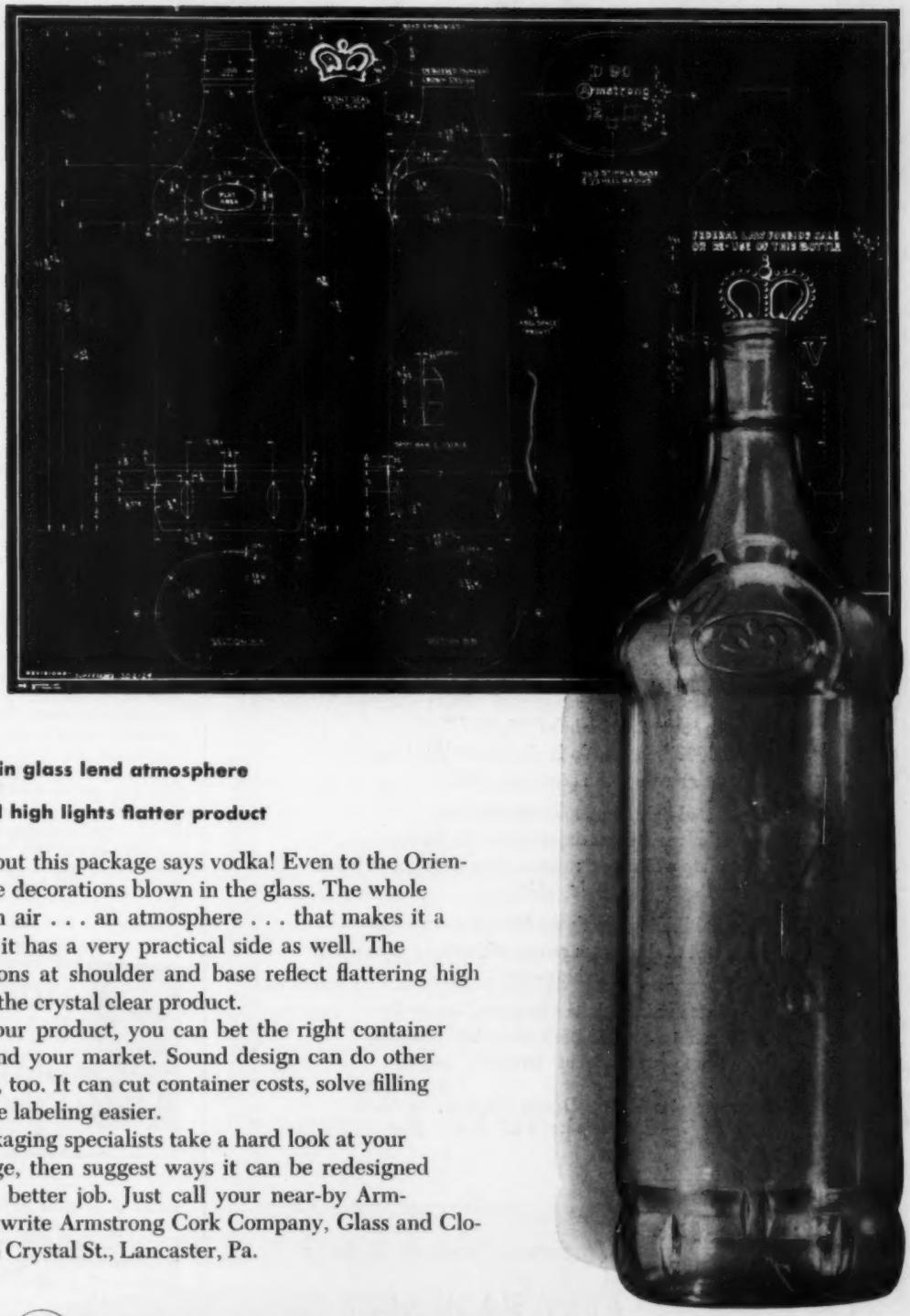
CHIVAS
WATERM
SCHEN
WALI
MA
BE



Imaginative design creates aristocratic new vodka package



1. Decorations in glass lend atmosphere

2. Reflected high lights flatter product

Everything about this package says vodka! Even to the Oriental flavor of the decorations blown in the glass. The whole package has an air . . . an atmosphere . . . that makes it a standout. And it has a very practical side as well. The many decorations at shoulder and base reflect flattering high lights through the crystal clear product.

Whatever your product, you can bet the right container will help expand your market. Sound design can do other important jobs, too. It can cut container costs, solve filling problems, make labeling easier.

Let our packaging specialists take a hard look at your present package, then suggest ways it can be redesigned to do an even better job. Just call your near-by Armstrong man or write Armstrong Cork Company, Glass and Closure Div., 5404 Crystal St., Lancaster, Pa.

Armstrong GLASS CONTAINERS

glass that performs . . . packages that sell

POST RH-1 Reflected Light Photohead . . .

counts register marks at any **speed**—any color

Want to count 2,000 labels? 20,000? 2,000,000? You can do it electronically with the new Decitron accessory; RH-1.

A reflected light photohead sensitive to any color register mark automatically flashes a signal to a Decitron counter when the register mark passes through the light orbit.

Even at blinding speeds the RH-1 is completely accurate . . . eliminates guesswork on long pressruns, and saves costly overshipments.

A separate unit, with its own power source the RH-1 is not a counter itself, but relays counting impulses to any model of "Decitron" counter.

See us at Booth #902 Design Engineering Show May 14-17—Philadelphia, Pa.

POST

Electronic Products Division

POST MACHINERY CO.

Beverly, Mass.

Plants and people

[*Continued from page 172*]

tion; **Rudy L. Tressner** is manufacturing manager; **William W. Wommack** has been appointed to the new position of assistant to the president in addition to his duties as director of purchases. Other changes include the appointment of **Robert S. Landaal** as manager of Ottawa River's Flint, Mich., Division; **William F. Connor**, sales manager of the Flint Division; **John A. Zinke**, sales manager of the Toledo Division.

Bird

Kenneth Bird has been appointed vice president and assistant to the president of the **Ace Carton Corp.** of California and will serve as manager of the newly constructed plant in Puente, Calif. Mr. Bird will also head the sales staff of the Puente plant.

Joseph S. Glasing, superintendent of the Russell, Mass., mill of **Westfield River Paper Co., Inc.**, has been named assistant to the vice president for manufacturing. **Edwin A. Vassar** replaces Mr. Glasing as superintendent of the Russell mill. **Watson Beecher** has been named company production manager and **William H. Griffiths** is now supervisor of production planning for the Pennsylvania plant. The company has sold its Manayunk plant (formerly the MacDowell Paper Mills) in Philadelphia to a new firm, **Pencoyd Paper Co.** The sale includes buildings and one paper machine only, the larger machine having been dismantled and moved to the Russell mill for re-assembly. The new owners plan to produce corrugating papers from waste stock.

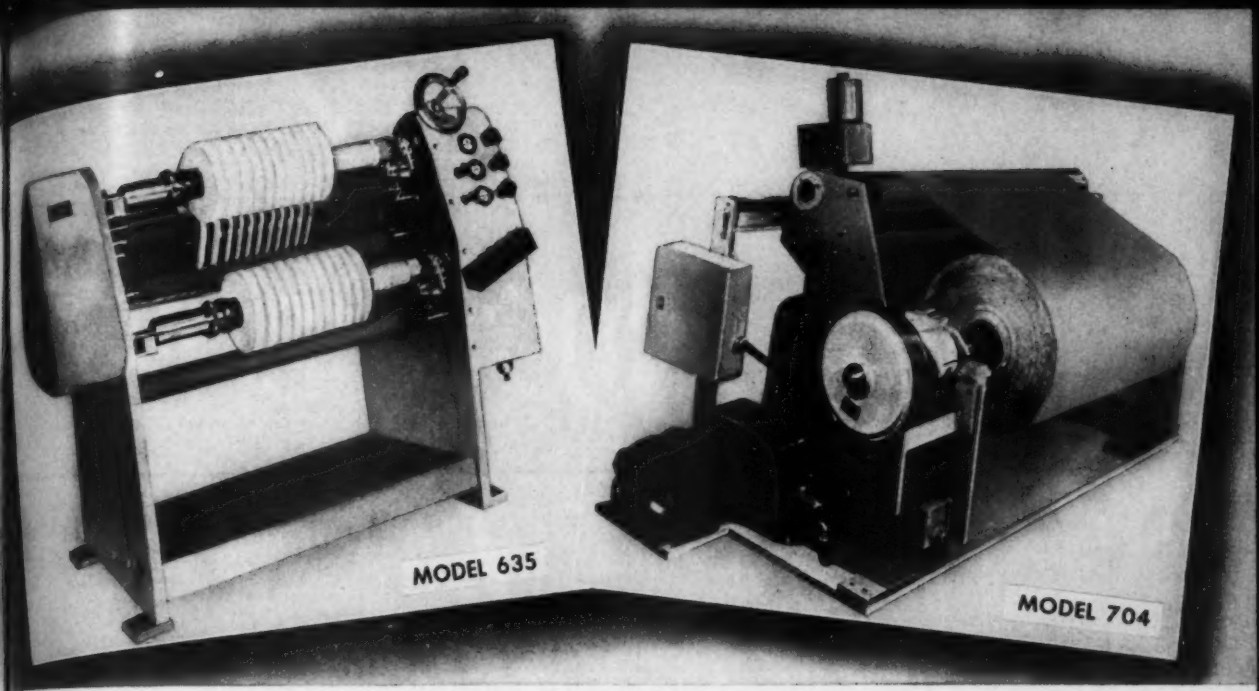
William J. Downing has been appointed assistant general sales manager for **Sinclair & Valentine Co.**, printing-ink manufacturers. The company has opened a new branch office at 200 Beauregard St., Mobile, Ala., under the management of **Frank Mitchell. Herbert L. Edelman** has been appointed district manager for Sinclair & Valentine Co.'s Florida territory.

Downing

James B. Scudder has been appointed sales representative for the **Warner Electric Brake & Clutch Co.**, Beloit, Wis. He will work out of Warner's Madison, N. J., office.

Semet-Solvay Petrochemical Div., Allied Chemical & Dye Corp., New York, will use the services and facilities

[*Continued on page 180*]



DUSENBERY MODEL 635

SHEAR CUT,
RAZOR BLADE
AND SCORE

Slitter

. . . in combination with Model 704 Unwind

for . . .

ACCURACY OF CUT

•

QUALITY OF ROLLS

•

MINIMUM MAINTENANCE

The Model 635 is best for efficient service and performance in slitting and rewinding films, coated materials, paper, foil and laminates

The Model 704 Unwind is best for extreme accuracy in guiding from a printed line or edge. The sensitive tension controls incorporated in this unwind will produce maximum yield from any mill roll.

These machines can be purchased separately to be used with your printing presses, laminators, slitters and coaters.

Write for Bulletins 635 and 704

MANUFACTURERS OF: SLITTERS, WINDERS, CONSTANT TENSION UNWINDERS, KNIVES, LEVERS, SLEEVES.

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SPECIAL CONVERTING EQUIPMENT DESIGNED TO MEET YOUR PRODUCTION PROBLEMS

Dusenbery

CONVERTING EQUIPMENT

JOHN DUSENBERY CO., INC., 275 GROVE AVE., VERONA, N. J. Tel: CEnter 9-3900

POST RH-1 Reflected Light Photohead . . .

counts register marks at any *speed*—any color

Want to count 2,000 labels? 20,000? 2,000,000? You can do it electronically with the new Decitron accessory; RH-1.

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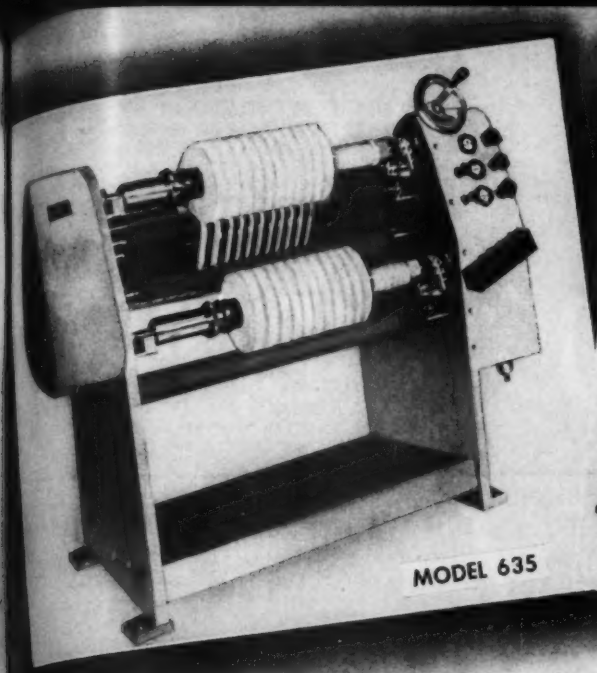

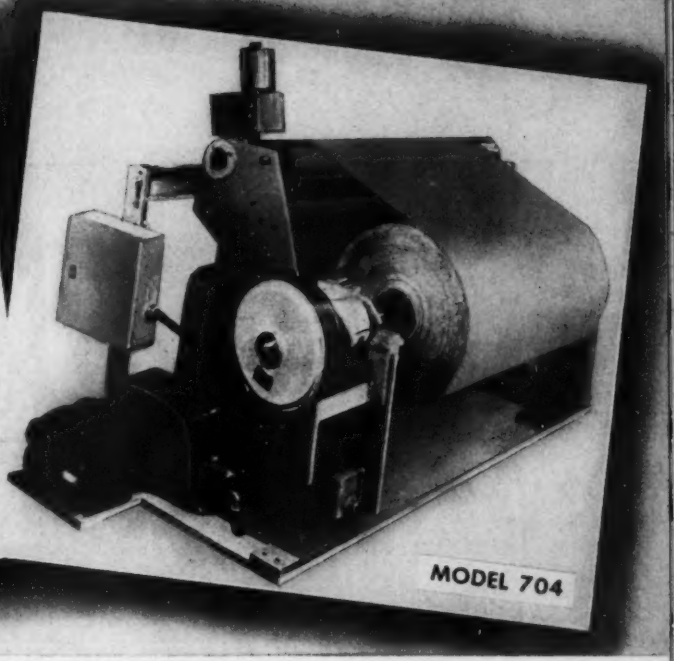

DUSENBERY MODEL 635

SHEAR CUT,
RAZOR BLADE
AND SCORE

Slitter

. . . in combination with Model 704 Unwind

for . . .

ACCURACY OF CUT

•

QUALITY OF ROLLS

•

MINIMUM MAINTENANCE

The Model 635 is best for efficient service and performance in slitting and rewinding films, coated materials, paper, foil and laminates

The Model 704 Unwind is best for extreme accuracy in guiding from a printed line or edge. The sensitive tension controls incorporated in this unwind will produce maximum yield from any mill roll.

These machines can be purchased separately to be used with your printing presses, laminators, slitters and coaters.

Write for Bulletins 635 and 704

MANUFACTURERS OF: SLITTERS, WINDERS, CONSTANT TENSION UNWINDERS, KNIVES, LEVERS, SLEEVES.

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SPECIAL CONVERTING EQUIPMENT DESIGNED TO MEET YOUR PRODUCTION PROBLEMS

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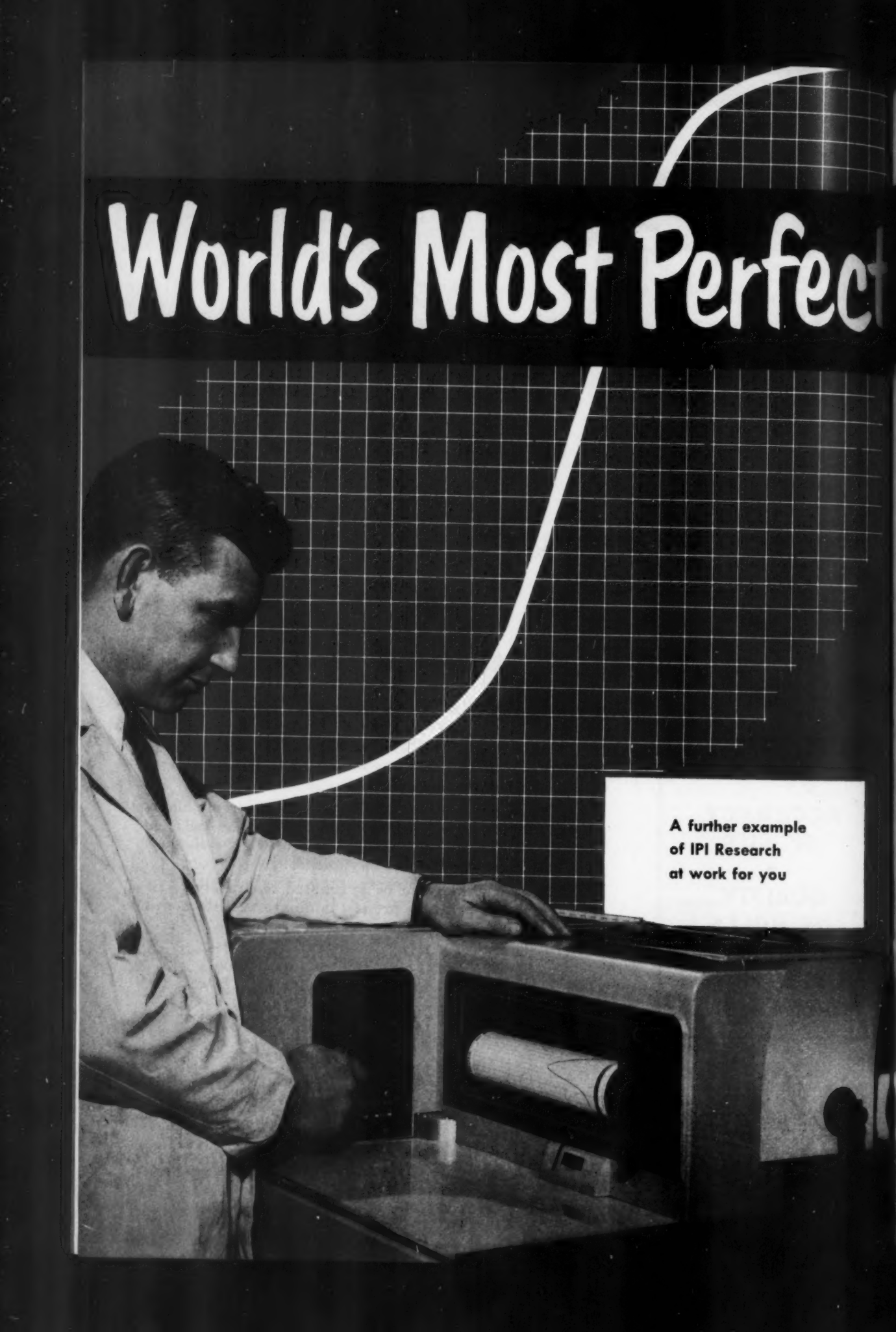
World's Most Perfect M
A further example
of IPI Research
at work for you

Memory For Color

GIVES YOU PRECISE, PERMANENT STANDARDS FOR COLOR CONTROL

Here is a precision laboratory instrument which measures and records color automatically and accurately. It is the latest model of the General Electric Recording Spectrophotometer—the first of which was built to specification by G-E engineers for the IPI Research Laboratories.

A trained human eye can distinguish one hundred thousand colors, yet the human mind cannot remember even one color with any degree of accuracy. The Spectrophotometer identifies millions of colors . . . measures, analyzes and memorizes them . . . writes its own exact and permanent record of any color sample.

While all pigments change with time, the curve plotted by the Spectrophotometer remains unchanged over the years. The original color could be accurately reproduced tomorrow or one hundred years hence for checking against your visual color standards.

But the precise measurement of color is only one of the many important contributions to printing ink progress that have come from IPI's broad program of fundamental research. Another is the development of new inks that have revolutionized letterpress printing and offset lithography. One example is IPI Vaporin Inks that heat-set in a split second and are largely responsible for today's high speed magazine printing. And there are the remarkable high gloss IPI flexographic inks for package printing—new inks for cellophane, polyethylene and foil.

This "passion for improvement" is the working philosophy behind all IPI research. Scores of project groups are constantly at work in the IPI laboratories . . . concentrating all of their efforts on the development and improvement of printing inks that will best serve the changing needs of printers everywhere.

It is this IPI leadership in ink research that gives you the greatest assurance of continued high quality in printing inks. You can always rely on IPI—for better inks, better printing.

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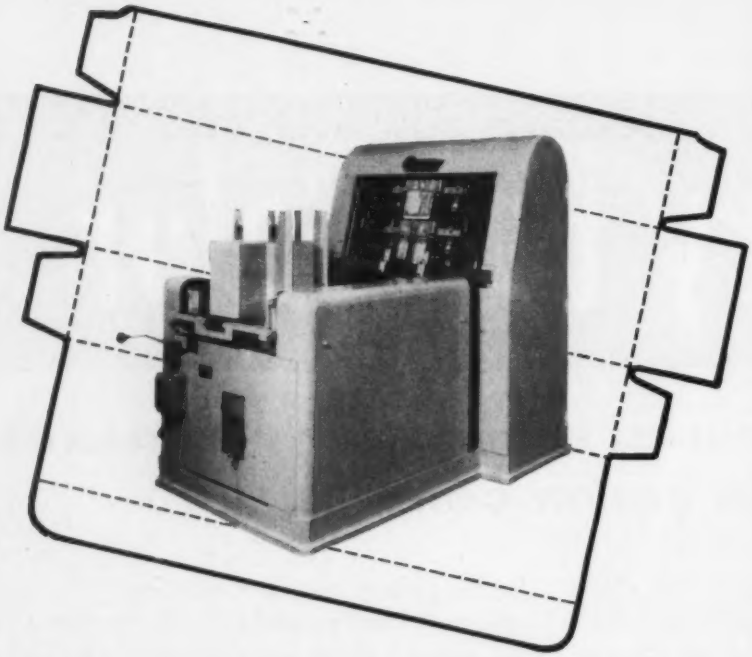
RELY ON IPI FOR LEADERSHIP IN INK RESEARCH

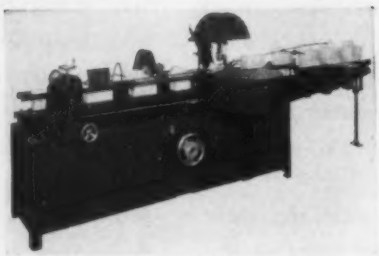


For profitable packaging ideas see Peters equipment

Get engineering help and practical solutions to your packaging problems.

Machines displayed are the Peters Model SG Carton and Tray Forming and Gluing Machine—capable of speeds up to 175 or more per minute; the Model CCY-L Carton Folding and Closing Machine that runs at speeds up to 120 or more per minute; and the Model L-2 Bag Sealing and Header Applying Machine—able to handle filled cellophane bags at speeds of 70 or more per minute.

For complete information and specifications on any of these machines, contact Peters.



Peters Model CCY-L Carton Folding and Closing Machine

Peters Model L-2 Bag Sealing and Header Applying Machine

Write, wire or call today.

Peters MACHINERY COMPANY

4712 Ravenswood Avenue
Chicago 40, Illinois
Phone: LOngbeach 1-9000

Plants and people

[*Continued from page 176*]

of **Thompson-Hayward Chemical Co.**, Kansas City, Mo., to market A-C polyethylene in the midwest and south-central area through its sales offices and warehouses located in the following 17 states: Minnesota, Nebraska, Kansas, Missouri, Arkansas, Oklahoma, Texas, Louisiana, Alabama, Mississippi, Southern Illinois and Indiana, Western Iowa, Kentucky, Tennessee, Georgia and Florida.

Dr. David C. Lea has been appointed research and development manager of the Forest Products Division, **Olin Mathieson Chemical Corp.**, West Monroe, Louisiana. Dr. Lea, formerly technical director for Potlatch Forests, Inc., will initiate a program to improve, upgrade and diversify the company's Frostkraft line of paper and paperboard products. He will also participate in the major expansion contemplated by the division.

Lea

Also announced by Olin is the promotion of **Eugene Britton** to film engineer for the company's Film Division.

Harold J. Crawford has been named sales representative for **Tee-Pak, Inc.**, Chicago, manufacturers of cellulose meat casings.

New Jersey Machine Corp., Hoboken, N. J., has appointed **Sterling Arner**, Charlotte, N. C., as its sales and service agent in the Southern territory including Georgia, Florida, North Carolina and South Carolina.

Jack Fairchild Fleming, industrial designer, has joined the staff of **Donald Deskey Associates**, New York, as an associate.

Howard Flint Ink Co., Detroit, has elected **Alan A. McNab** as sales vice president. Succeeding Mr. McNab as sales manager is **Everett L. Mills**, who formerly managed the Flint factories in Atlanta and New Orleans.

Smith-Tepper-Sundberg, graphic and industrial designers, San Francisco, have appointed **Edith Witt** of **Western Research Institute** as market research consultant on packaging projects.

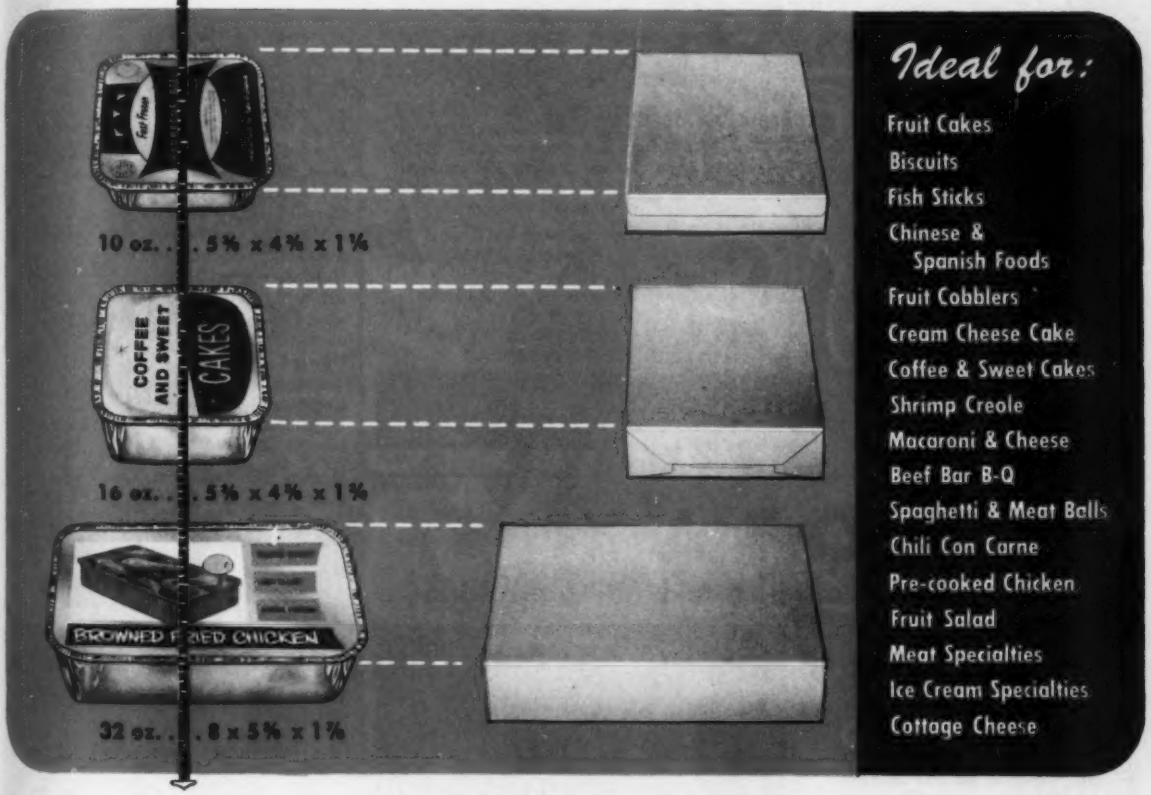
The Hazel-Atlas Glass Co., Wheeling, W. Va., has opened two new district sales offices, one in Indianapolis, Ind., headed by **William E. Klingensmith**, and the other in Milwaukee, Wis., under the management of **John F. Chaney**.

Boren Industrial Designers have announced their association with **Eastwood, Stetser & Associates**, architects

For that CABINET FIT..

COCHRAN tailors Foil Containers to today's most accepted sizes–

10–16–32 ounces!



Ideal for:

- Fruit Cakes
- Biscuits
- Fish Sticks
- Chinese & Spanish Foods
- Fruit Cobblers
- Cream Cheese Cake
- Coffee & Sweet Cakes
- Shrimp Creole
- Macaroni & Cheese
- Beef Bar B-Q
- Spaghetti & Meat Balls
- Chili Con Carne
- Pre-cooked Chicken
- Fruit Salad
- Meat Specialties
- Ice Cream Specialties
- Cottage Cheese

A COMPLETE FOIL PACKAGING PROGRAM!

The Cochran 10-16-32 ounce rectangular containers match the standard accepted sizes in today's self-service markets. Available both in curled rim and vertical flange construction, these Cochran packages offer all the alluring sales appeal and protective qualities of aluminum foil. They are suited to foil laminated covers. Closure equipment to suit your production needs is also available. Investigate this complete frozen food foil packaging program.

For samples write Cochran Foil Company, Inc., Dept. E-4, 1430 S. 13th St., Louisville 10, Ky.

Cochran FOIL COMPANY
Incorporated

FACILITIES AS FLEXIBLE AS FOIL ITSELF

increase the sales potential of

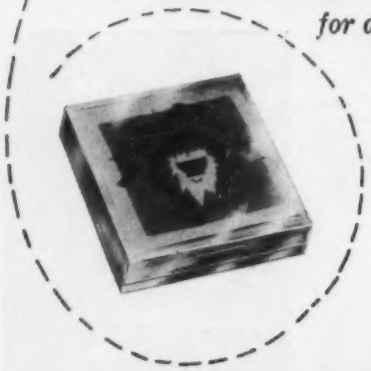
with

LOW COST

TRANSPARENT ACETATE COVERS

AUTOMATICALLY MADE—ELECTRONICALLY SEALED

for durability
strength
uniformity



A new, revolutionary method of producing acetate covers for boxes through the use of fully automatic high speed machinery results in a better, stronger product. Container Craft Inc. makes all these preferred features available to you at the lowest cost ever!

better because

- All corners are heat-sealed—hold longer, look better.
- Corner ridge made by electronic seal gives added strength.
- Only the highest quality acetate used.
- Optional gold leaf stamping.

Sizes from 4" x 1" to 10" x 6". Write or call for quotations regarding your requirements.

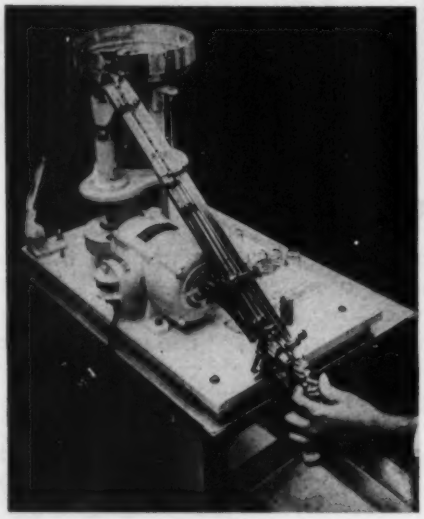
CONTAINER-CRAFT INC.

ROTAX

Tablet-capsule counting and filling machine

Comes complete . . . no additional parts needed for any operation!

1. Adapts to more counting-filling jobs than any other machine available . . . fills into any container!
2. Changeover time from item to item: approximately 5 minutes.
3. Will stack lozenges and tablets of all sizes.
4. Standard machine, with no extra parts, is capable of counting and filling uncoated tablets from 3/16" up . . . capsules from No. 5 to No. 000 . . . coated tablets from 9/32 to 19/32 inches.
5. Unmatched for ease of operation and clean-up.



Why not write today for descriptive brochure.

THE BURNET COMPANY

100 Gold Street New York 38, N. Y. BEekman 3-8277

Established 1889

Sole U.S. and Canada distributor of Rotax

Plants and people

and engineers. New address is Old York Rd., Abington, Pa.

Allport

Announcement has been made of the appointment of **Hamilton Allport, Jr.**, as comptroller of the **F. B. Redington Co.**, Bellwood, Ill., makers of packaging machinery. Mr. Allport was formerly in charge of the New York sales office.

Dr. Richard E. Chaddock has been appointed to the newly created post of director of development for **Hercules Powder Co.**'s Virginia Cellulose Department. **Dr. William G. Kinsinger** succeeds Dr. Chaddock as manager of Hercules sales research division.

Three new managerial sales appointments have been announced by the Hercules Paper Makers Chemical Department: **Robert R. Buss**, district manager, Kalamazoo, Mich.; **Edwin R. Fait**, district manager, Wilmington, Del.; **Howard H. Parker**, assistant district manager, Kalamazoo. **Daniel D. Cameron** is now sales manager for the Paper Makers Chemical Dept., Hercules Powder Co. (Canada) Ltd.

Dukehart

Morton M. Dukehart has been appointed product manager of the new Multi-Unit Packaging Division of **The Lord Baltimore Press**, Baltimore, Md. Mr. Dukehart will headquarter in New York and will have available to him the design, engineering and production facilities of The Lord Baltimore Press and, on the West Coast, the **Fleishhacker Paper Box Co.** of San Francisco, an associate company.

Sherman Morse, Jr., has been appointed vice president in charge of food production for **Beech-Nut Packing Co.**, Canajoharie, N. Y.

The Bristol Co., Waterbury, Conn., has appointed two new district managers: **L. B. Lumpkin** heads the Pittsburgh office and **W. C. Peterson** takes over as manager of the Birmingham office.

Offices of **The M. W. Kellogg Co.** will be located, beginning next month, at 711 Third Ave., New York, a new building located between 44 and 45 Sts., in midtown Manhattan.

Behr-Manning, division of Norton Co., Troy, N. Y., has appointed **John C. McGreivey** as industrial sales manager for the New York division, serviced out of the Teterboro branch warehouse.

Morris Paper Mills, Chicago, is consolidating the manufacturing operation [*Continued on page 187*]

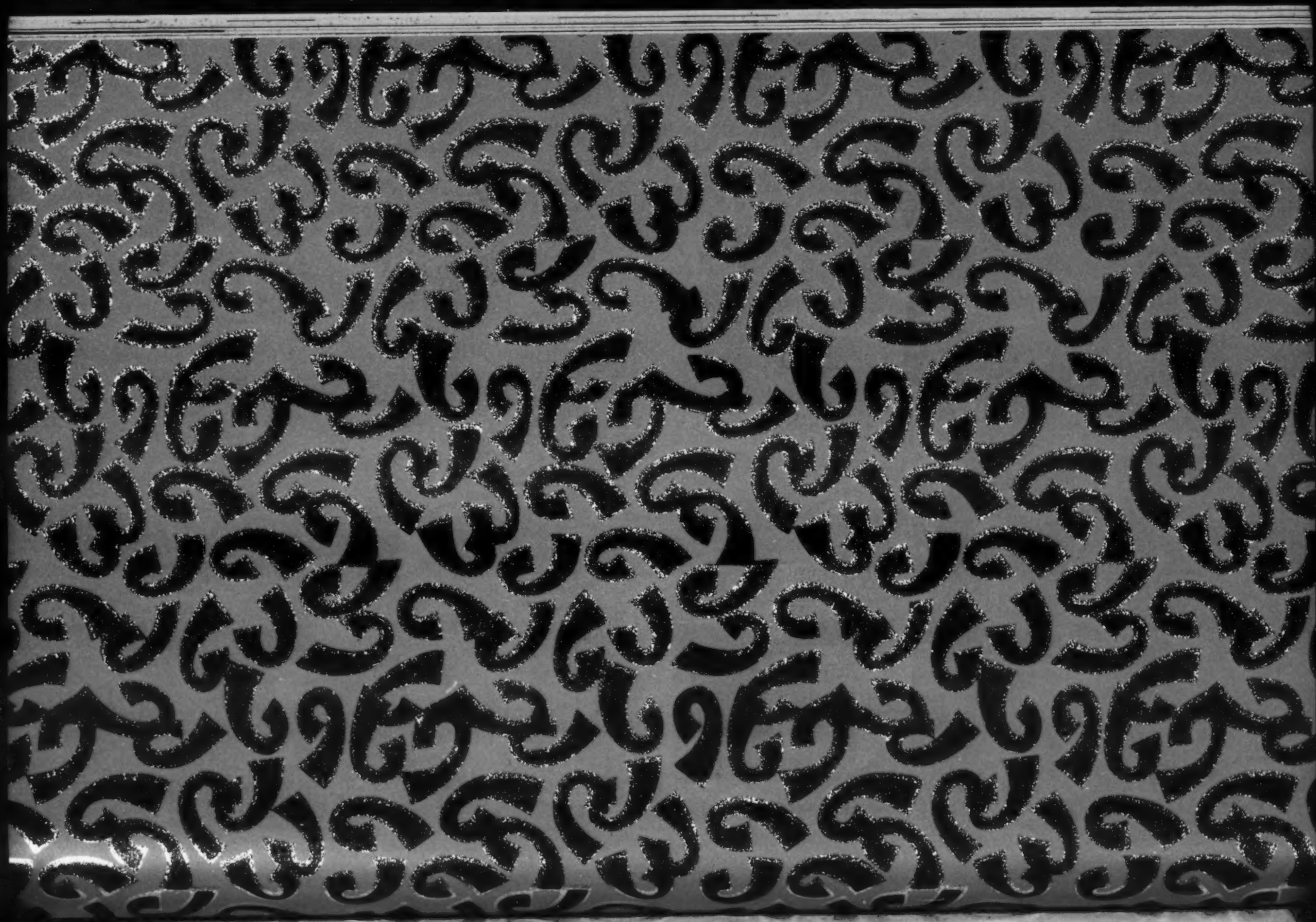
Eye-catching...

fisher's foils

FISHER'S FOILS LIMITED WEMBLEY MIDDLESEX ENGLAND

TELEPHONE WEMBLEY 6011 CABLES & GRAMS LIOFNIT WEMBLEY TABC CODE 6TH EDN

elliot greenleaf



★ *A Quality Product of* **FISHER'S FOILS** *of* **LONDON, ENGLAND.**

Throughout all stages of manufacture, every roll of foil made by Fisher's Foils of England is *automatically controlled* for gauge consistency by the latest beam gauge. Send today for wide range of samples or ask our representative to call.
fisher's
foils

M-W 86

Plants and people

[Continued from page 182]

now located at the Imperial Division plant in Melrose Park, Ill., with its manufacturing operations at Morris, Ill. Until such time as additional facilities can be built in Morris, the Imperial Division plant will be used as a finished-goods warehouse. The company has leased the 18th floor of 7 S. Dearborn St., Chicago 3, where it will consolidate executive and sales offices formerly at 135 S. LaSalle St. and in Melrose Park.

Richard V. Vosburgh has been named executive vice president of the **Imco Container Corp.**, Kansas City, Mo. He will continue to head up Imco's world-wide sales activities. **Lee H. Simmons** has been made a vice president and will remain in New York, where he will continue to manage Imco's eastern sales.

W. F. & John Barnes Co., Food & Container Section, Rockford, Ill., has appointed **Albert Bramer & Associates**, 260 Paul Brown Bldg., St. Louis, Mo., as exclusive sales representatives in the South Central region, covering Missouri, Kansas, Oklahoma, Arkansas and Southern Illinois.

Mrs. Olive Salembier has been appointed executive vice president of the **Specification Packaging Engineering Corp.**, North Hollywood, Calif. **Chaplin E. Collins** has been named secretary.

The Colgate-Palmolive Co., New York, has completed arrangements to purchase a 35-acre tract of land in Bloomfield, N. J., for a research center to cost several million dollars. The company will consolidate its basic and applied research at the new center, where 400 research personnel will work. **Dr. Thomas H. Vaughn**, vice president for research and development, will be in charge of the Bloomfield center.

George F. Dun has been named assistant general manager of the **Standard-Knapp Div. of Emhart Mfg. Co.** in Portland, Conn.

Morris J. Root, technical director of **G. Barr & Co.**, Chicago aerosol manufacturer, has been named co-chairman of the membership committee of the **Society of Cosmetic Chemists.**

National Container Corp.'s new kraft corrugated container plant in Atlanta, Ga., is now in operation. The new plant, occupying 110,000 sq. ft. of space on one floor, will replace the sheet plant previously operated by the company in Atlanta. **Sydney B. Marks** continues as general manager and sales manager; **Carl R. Zwerner** remains as plant superintendent.

Frank Peace has been appointed general manager and **Walter Peace** has been named sales manager of **Automatic Paper Box, Ltd.**, a Rolph-Clark-Stone, Ltd., subsidiary, Toronto, Canada.

Frank Guerena has joined the Western Waxed Paper Division, **Crown Zellerbach Corp.**, San Leandro, Calif., as sales representative in Central California.

Frank W. Broderick, formerly with the Reynolds Metals Co. and Modern Engraving & Machine Co., has formed **Alclyde Engraving Co.**, Chatham, N. J. Officers of the new company are Mr. Broderick, president; **J. Sidney Morgan**, vice president, and **H. Donald Oberding**, secretary-treasurer. The company will manufacture precision engineered application cylinders, printing rolls, embossing rolls and machines.

Kenneth M. Ford has joined the **Atlas Plywood Corp.**, Boston, as business research director.

Crawford Donnelly has been appointed district manager for **Angier Corp.**, Framingham, Mass., covering the Indiana-Western Ohio-Kentucky territory, to fill the vacancy left by **Edwin Mendels**, now manager for tape sales.

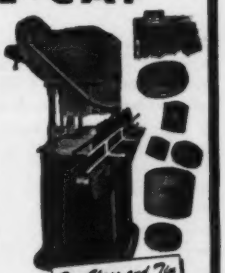
Announcement has been made of the formation of **Raymond Bag Corp., Div. of The Albemarle Paper Mfg. Co.**, Richmond, Va. The new corporation combines the manufacturing facilities of The Raymond Bag Co. of Middletown, Ohio, with those of Albemarle's Multiwall Bag Division. Officers of the new corporation are **F. D. Gottwald**, chairman of the board; **C. L. Mers**, president; **J. H. Lawrence**, vice president, manufacturing; **J. R. Clements**, vice president, sales; **W. G. Shaw**, treasurer; **C. C. Mers**, secretary.

Porter B. Clapp has been appointed sales representative for the **Steel Strapping Division of The Stanley Works**, New Britain, Conn. Mr. Clapp will work out of the Chicago office.

Col. Evan Ewan Kimble, founder of the Kimble Glass Co., now a subsidiary of the Owens-Illinois Glass Co., Toledo, Ohio, died March 15. He was 87 years old. Mr. Kimble was born in Tuckahoe, N. J., and went to work in a glass plant at the age of 12. In 1901 he founded the Kimble Glass Co., which became a leading manufacturer of laboratory and pharmaceutical glass. He retired as president of the company in 1933.

Kimble

MODERNIZE
SCREW CAPPING OPERATIONS
with the
FULLY AUTOMATIC
"TITE-CAP"
SCREW CAPPER



Submit Sample Containers and Caps for Prompt Introduction to A Gilt-Edged Investment!

For Glass and Tin Metal and Plastic Screw Caps

- Quick Change-Overs; Easy Adjustments.
- Trouble-Free; Any Handy-Man Services It.
- Performs the Work of 2 or 3 Men.
- Increased Output, Automatic Operation. Pay for the "TITE-CAP" in about 6 months.
- New Hopper Handles Large Variety of Caps.
- Models for all Types of Capping Operations including Special Closures, Inner Seals, Lids, Plugs, Etc.

TITE-CAP MACHINE CO. INC.
56 Rose St., New York 38, N. Y.

"SCIENTIFIC"
portable
SEMI-AUTOMATIC STRAIGHT LINE
VACUUM FILLER

- Fills Directly from Drum; No Overhead Tanks Required.
- Vials to Quarts, Glass or Tin.
- Up to 10 Spouts for Small Containers.
- Quick Change-Overs. Cleans Itself. 5 Minutes.
- ONLY ONE OPERATOR for Loading and Filling.
- LOW PRICED BENCH and STAND MODELS.

Actually Pays For Itself In A Few Weeks
Write for FREE TRIAL OFFER

Whirlwind
SCREW CAPPER

- Replaces Uncertain Hand Capping; Eliminates Fatigue and Worn-Out Fingers. ANY CAP—ANY CONTAINER—PERFECT SEALING!
- Adjustable Tension Device Controls Cap Tightness.
- Portable, Flexible, Fast; Easy to Operate.

CAN YOU AFFORD TO BE WITHOUT IT?
ACT NOW! Send Sample Caps For FREE TRIAL

SCIENTIFIC FILTER CO.
56 Rose St., New York 38, N. Y.

For your information

More than 12,000 persons are expected to attend the **10th Annual Exhibit & Symposium** of the **Point-of-Purchase Advertising Institute, Inc.**, to be held at the Sheraton-Astor in New York, April 10-12. Features of the POPAI Symposium this year will be a merchandising forum, with panel members from radio, television, oil, food, drug and the brewery industries. A new feature will be special exhibits by several national advertisers showing how their point-of-purchase advertising is integrated with other media. Free tickets to the exhibit and tickets for the luncheon ($7.50 each) on April 11 are available on request to **Norton Jackson** POPAI executive director, 11 W. 42 St., New York 36.

The Textile Bag Mfrs. Assn. has re-elected **R. N. Connors** of Chase Bag Co. as association president. **T. J. Semmes** of Semmes Bag Co. has been re-elected vice president. Before his election as president, Mr. Connors was chairman of advertising and promotion for the association and active in promoting the annual Cotton Bag Sewing Contest, sponsored jointly by the association and the National Cotton Council. The fourth annual contest will be held this fall.

Connors

An innovation at this year's annual convention of the **Toilet Goods Assn.**, to be held at the Waldorf-Astoria, New York, May 15-17, will be a session devoted to executive problems arising out of packaging and production. According to the association, changes in this area of toilet-goods manufacture have been revolutionary. In the past, only the big companies have been able to put them completely into practice, the association claims, with the result that small companies have been placed to some extent at a competitive disadvantage. An entire session of the convention, under the supervision of **Ed Love** of Bristol-Myers, will be devoted to minimizing this disadvantage. The importance of packaging design to sales and the reduction of costs through automatic and semi-automatic equipment, along with the latest advances in plastics and other packaging materials, will be discussed.

The Spring Meeting of the **Fibre Box Assn.** will be held at the Boca Raton Hotel and Club, Boca Raton, Fla., April 24-25.

The Package Designers Council is sponsoring a full day seminar on professional package design, to be held May 12 at the Silvermine Guild of Artists, Norwalk, Conn. The development of product packaging from design concept to the consumer will de discussed. Interested professional designers may obtain an agenda and invitation from the Package Designers Council, 12 E. 46 St., New York 17.

New York University's Division of General Education is conducting the sixth **Statistical Quality Control Seminar** for the graphic arts industries April 30 to May 4 at Gould House, Ardsley-on-Hudson, N. Y. The intensive five-day course includes day and evening sessions and luncheon meetings covering the uses of statistical quality control as a buying tool, control charts, sampling plans and statistics fundamentals. **Donald Macaulay**, president of Paper Quality Control, Inc., and technical editor of *The American Printer*, will serve as seminar director.

R. L. Vayo of the **St. Regis Paper Co.** was elected president of the **Kraft Paper Assn., Inc.**, at its recent annual meeting. **S. D. Fleet** of the Albemarle Paper Mfg. Co. was named as vice president.

The Design Engineering Conference, sponsored by the machine design division of the **American Society of Mechanical Engineers**, will be held at Conventional Hall, Philadelphia, May 14-17. These dates coincide with those for the first **Design Engineering Show**, a new industrial exposition produced by **Clapp & Poliak, Inc.**, exposition managers, New York.

Milner Gray, British package designer, in his new book, **"Package Design,"** has provided the student of package design with a comprehensive but concise guide to the "why" as well as the "how" of packaging. Mr. Gray examines the uses and usefulness of packaging as a function of distribution and shows how the designer goes to work to produce a container that satisfies this function. The author's three main divisions cover the merchandising aspects of packaging, the design itself, and techniques and materials. All principles discussed are well illustrated by reference to actual commercial packages. In addition, two case histories are given more detailed treatment, carrying their packages through all stages from the preliminary consultations with the client to the point where the responsibility of the designer normally ends. The 128-page book contains more than 180 illustrations. It is published by The Studio, Ltd., 66 Chandos Pl., WC2, London, England, and The Studio Publications, Inc., 432 Fourth Ave., New York.

Some 250 marketing, sales and advertising executives are expected to attend the **American Management Assn.'s Special Marketing Conference**, April 30-May 1, Drake Hotel, Chicago. Sales forecasting will be the subject of a program designed to present a rounded picture of the organization, techniques and practices of industrial and consumer-goods manufacturers for predicting future sales. Areas to be covered in-

What's doing

April 10-12—**Point-of-Purchasing Advertising Institute**, 10th Annual Symposium & Exhibit, Sheraton-Astor, New York.

April 11-13—**Food and Container Institute**, annual meeting, Statler, Boston.

April 12-18—**National Fisheries Institute, Inc.**, Seville, Miami Beach, Fla.

April 24-25—**Fibre Box Assn.**, spring meeting, Boca Raton Hotel, Boca Raton, Fla.

April 30-May 1—**American Management Assn.**, Special Marketing Conference, Drake, Chicago.

May 4-5—**American Material Handling Society**, Industrial Packaging Conference and Exhibit, University of Buffalo, New York.

May 6-9—**Super Market Institute**, 19th annual convention, Public Auditorium, Cleveland.

May 7-9—**Technical Assn. of the Pulp & Paper Industry**, 7th Annual Coating Conference, Benjamin Franklin Hotel, Philadelphia.

May 7-11—**National Restaurant Assn.**, Navy Pier, Chicago.

May 10-12—**Lithographers National Assn.**, 51st annual convention, Drake Hotel, Chicago.

May 13-18—**New York Stationery Show**, Hotel New Yorker, New York.

May 14-16—**Biscuit & Cracker Mfrs. Assn. and Independent Biscuit Mfrs. Co., Inc.**, Plaza, New York.

May 14-17—**American Society of Mechanical Engineers**, Design Engineering Conference and First Design Engineering Show, Convention Hall, Philadelphia.

May 15-17—**Toilet Goods Assn.**, annual convention, Waldorf-Astoria, New York.

May 18-25—**Southeastern Internationl Industrial Exposition**, Atlanta, Ga.

May 21-25—**41st National Conference on Weights and Measures**, National Bureau of Standards, Washington, D. C.

May 23-25—**American Management Assn.**, General Management Conference, Hotel Roosevelt, New York.

Another Texas First!
Gleaming plastic containers *at paper prices*

They nest when empty and when filled they stack with economy of refrigerator space.

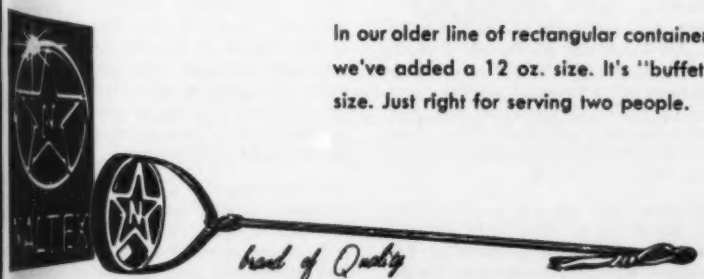
Spoon shaped bottom. No corners to dig.

The advertising value of your label continues to work for you on reusable plastic containers.

New automatic processes in manufacturing make this new container possible. Now you can have the sales appeal of a gleaming plastic package and the added attraction of being a reusable container *at paper prices.*

And the advertising value of your label continues to work for you on reusable plastic containers. Ask about the new Naltex Round Pint.

In our older line of rectangular containers we've added a 12 oz. size. It's "buffet" size. Just right for serving two people.

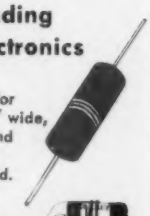


NALLE PLASTICS INC., 108 WEST SECOND STREET, AUSTIN 1, TEXAS

MARKEM
solved these marking problems

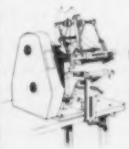
color banding diodes for electronics

. . . four identifying color bands, each only .015" wide, had to be printed. Hand brush application was slow, production lagged. Markem suggested a Markem 69A machine for the job. Production has jumped, costs have come down, customers get better delivery.



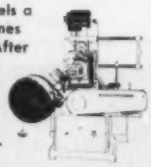
imprinting meat packages for wholesalers

. . . ingredients and other variables are imprinted on plastic bags already preprinted with brand name, trademark. Wholesalers using Markem 45A machines this way can keep up with shifts in retail demand, don't have to maintain large inventories of bags.



printing cloth labels for garment manufacturers

. . . a manufacturer of women's underwear uses two Markem 126 machines for one and two-color cloth label printing. Production averages 80,000 labels a day, machines sometimes run 16 hours a day. After one year they've had no serious trouble — machines have printed and cut over 10 million labels.



To mark your product, part or package better, call Markem Machine Co., Keene, N. H.

MARKEM ...TO MAKE YOUR MARK

For your Information

clude forecasting as a tool of management planning, estimating sales of new products, the practical use of mathematical tools for forecasting and the presentation of the forecast to top management. Fees for the conference are $60 for AMA members and $75 for nonmembers.

Hinde & Dauch has announced publication of a revised edition of "How to Ship More Economically in Corrugated Boxes." featuring a new format and illustrations. Subjects covered in the new edition include: design of a corrugated box, testing, storage, shipping room layout, packing, sealing, stacking and loading. Copies of the booklet are available on request to Hinde & Dauch, Sandusky, Ohio.

The 29th Annual Exhibition of Design in Chicago Printing, sponsored by the **Society of Typographic Arts**, is currently being held at the Art Institute of Chicago. Members of the jury—**Herbert Bayer, Lester Beall and Noel Martin**—selected 89 pieces from the nearly 900 items submitted. Material selected included examples which fit into 17 categories. In the current show, more packages were accepted than items in any other category. Closing date for the exhibit is May 6.

Louis C. Krauthoff of **H. D. Catty Corp.** has been elected president of the **Coated & Processed Paper Assn.** New executive committee members include: **Leonard A. Schulman, Kupfer Bros. Co.; Spurgeon F. Barndt, Wyomissing Glazed Paper Co.; Douglas L. Swan, New England Card & Paper Co., and Lawrence R. Clark, Hampden Glazed Paper & Card Co. Arthur A. Thomas,** executive director, is also secretary-treasurer of the association.

The National American Material Handling Society Packaging Conference has been scheduled for May 4-5 at the University of Buffalo, Buffalo, N. Y. There will be three workshop seminars and a technical seminar covering all phases of protective packaging will be featured on Friday, May 4, from 5 to 10 p.m. and on Saturday, May 5, from 10 a.m. to 1 p.m.

Additional floor space is now available for exhibitors in the **Sixth Western Packaging & Materials Handling Exposition**, scheduled for the Pan Pacific Auditorium, Los Angeles, July 10-12. Arrangements have been made to extend the floor plan to accommodate the additional firms desiring to exhibit. All original exhibit space had been sold out early in January. A print of the new floor plan is available through **Clapp & Poliak**, producers of the show, at 341 Madison Ave., New York, or at 681 Market St., San Francisco. The show is expected to be the most comprehensive in its field ever presented in the West.

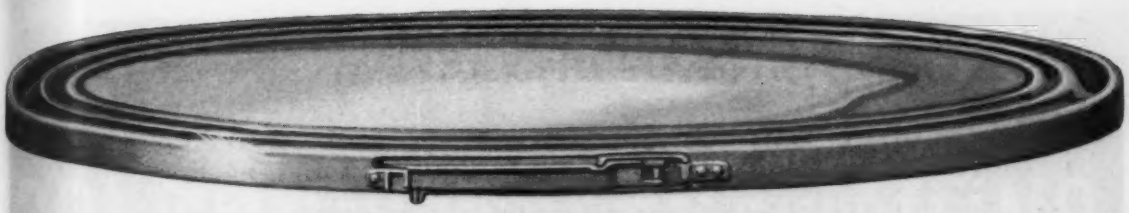
Theme of **TAPPI's 7th Annual Coating Conference**, to be held May 7-9 at the Benjamin Franklin Hotel, Philadelphia, will be "Synthetic Adhesives for Paper Coating." **Norman F. Greenway** of **Robert Gair Co.** will be keynote speaker at the official luncheon. Plans have been made for visits to the new Du Pont Polychemicals Department Laboratory and the Hercules Experimental Station on May 10.

Dominant theme of the **14th Printing Management Seminar**, scheduled for April 27-28, School of Printing Management, **Carnegie Institute of Technology**, Pittsburgh, is "Printing for Packaging." Among the speakers at this year's annual event will be **F. S. Leinbach** of Riegel Paper Corp.; **Egmont Arens**, New York industrial designer, and **W. B. Tibbets** of Bakelite Co.

The Kalamazoo Vegetable Parchment Co. has published a useful and interesting brochure, titled "Packaging—Creative and Mechanical Aspects," giving the fundamentals of design, printing and production. The 32-page, full-color-printed booklet can serve as a handy reference guide, since it covers each step in developing a package. Starting with package design, it covers artwork, type, printing and platemaking, paper, mechanical considerations in packaging, and concludes with a listing of 10 basic requirements of a successful package. Copies of the brochure are available on request to the Kalamazoo Vegetable Parchment Co., Kalamazoo, Mich.

A packaging session was one of the features of the **Gravure Technical Assn.'s** seventh annual convention, held in New York last month. Theme of the session was "Gravure for the Packaging Man." The program, devoted to highly technical facets of the industry, included reports on industry and G.T.A. technical progress; talks on different types of cylinders, sheet-feed gravure process; film printing by gravure; ink viscosity, and a panel-group discussion on control of press waste.

The American Can Co., New York, has published its first issue of "The Mira-Can Merchandiser," a four-page tabloid to be issued every 60 days, designed to keep carbonated beverage packers and their franchisers abreast of news in the canned soft-drink field.



RHEEM FIBRE DRUMS PAMPER YOUR PRODUCT WITH BETTER PROTECTION

Once you ship your product, it's on its own. Only the drum you have chosen can keep that product safe from the rough treatment it's all too likely to get between you and your customer. That's where Rheem, and Rheem Fibre Drums, come in.

OUTSIDE

Sturdy drum bodies are convolutely laminated from layers of heavy duty kraft linerboard—resilient layers that *give* under heavy blows and spring back for more. And these lightweight bodies are so amazingly strong, they can pick up and carry up to 20 times their own weight, and arrive looking like you *want* them to look.

INSIDE

Rheem Packaging Engineers know few products have exactly the same container needs. They take actual goods on special trips in test drums. Anything that can affect the product goes right along—bounces and blows, moisture, sudden shifts from hot to cold. Out of these trips—and constant field evaluation—come *planned* linings and inner coatings for particular products. It's all part of a never-ending Rheem search for newer and better interior protection.

TOP and BOTTOM

Whether you choose all-fibre or fibre-metal drums, Rheem engineering insures rugged tops and bottoms. All-fibre ends are the same rugged material used in drum bodies—only thicker. Cover closure is quickly and easily made. Economical tape seals eliminate chance of damage when opening or closing for re-use. Metal end constructions have strong lock band closures—maximum convenience for both shippers and users.

You can rely on Rheem for better product protection

For expert packaging counsel, write the Rheem Office nearest you:

477 Madison Ave., New York 22, N.Y.
4361 Firestone Blvd., South Gate, Calif.
1025 Lockwood Dr., Houston, Texas
Highway 25, 1701 W. Edgar Rd., Linden, N. J.
801 Chesley Ave., Richmond, Calif.
5001 Jefferson Hwy., New Orleans, La.
7600 Kedzie Ave., Chicago 29, Ill.
Box 6718, Sparrows Point 19, Md.

FIBRE DRUMS, STEEL DRUMS AND PAILS, SPECIAL EQUIPMENT CONTAINERS

U. S. patents digest

This digest includes each month the more important patents of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at 25 cents each in currency, money order or certified check; postage stamps not accepted. Edited by H. A. Levey.

Cushion Pad for Jewelry Packing and Shipping Container, W. J. Thompson, (to C & M Mfg. Co., a corporation of Rhode Island). U.S. 2,731,141, Jan. 17. In a cardboard foundation of generally rectangular form adapted to be placed within a box, having a rectangular central opening providing a rectangular front strip, a rectangular rear strip and side ridges, respectively, connected to the front and rear strip by fold lines and front sloping sections having article-attaching openings therethrough.

Dispensing Container and Blank With Improved Pouring Mechanism, C. R. Alden (to Ex-Cell-O Corp., Detroit, Mich.). U.S. 2,731,188, Jan. 17. A container of paperboard and comprising, in combination, a pouring opening panel and a wall panel, said panels being angularly disposed relative to each other and connected by a common score line, a lift tab severably attached to pouring opening and having its major portion coplanar therewith, a pouring-opening ply fixed in abutting relation with the inner faces of pouring-opening panel and wall panel.

Nesting-Type Container, G. A. Moore, New York. U.S. 2,731,189, Jan. 17. A cup-like container of sheet material comprising an assembly of two pre-cut strips of material, each of said strips being generally elongated rectangular shape and crossed centrally, one across the other, in cruciform relation which provides a uniformly flat reinforced two-ply bottom wall of rectangular shape of container, each bottom wall layer being adhesively united together.

Refrigerator Carton, R. A. Farrell (to Marathon Corp., Rothschild, Wis.). U.S. 2,731,190, Jan. 17. A leakproof container comprising a downwardly inwardly tapered paper receptacle portion and a flexible cover therefor, said receptacle portion being formed from a single folded paperboard blank suitably cut and scored to provide a bottom wall, opposed pairs of side walls connected to bottom wall, one opposed pair of side walls having glue flaps connected along each side edge and overlying and adhered to other pair of side walls, flaps on each side wall of such one pair being together of dimensions to extend adjacent the top edge of the wall to which they are adhered substantially across the entire width of such wall and being of dimension insufficient to overlap each other adjacent such top edge.

Fibreboard Shipping Container, H. W. Layne (to Anderson Box Co., Indianapolis, Ind.). U.S. 2,731,191, Jan. 17. A shipping container formed of a single blank of fibreboard including a one-piece bottom panel having a slot at each end thereof, adjacent side panels to be folded upwardly therefrom and having a hinged-cover lid foldable over from the upper edge of one of the side panels.

Wrapper, F. G. Dedek and M. G. Schaar (to Burroughs Corp., Detroit, Mich.). U.S. 2,732,063, Jan. 24. A wrapper comprising a generally rectangular, elongated strip of flexible material having a gradually narrowed end portion of a generally trapezoidal shape, a self-sealing adhesive area at the end of end portion, a second self-sealing adhesive area spaced from first-named area longitudinally of and on the other side of strip but remote from the other end thereof, said strip having a pair of cut-outs spaced longitudinally of said strip and disposed at opposite ends of second area, perforations extending between cut outs on opposite sides of second area to form a removable tear portion for breaking the seal of a package wrapped in the wrapper.

Seed Package, W. W. Quackenbush, Chicago. U.S. 2,732,064, Jan. 24. A seed package comprising an envelope open at one end containing seeds and having a short flap contiguous to said open end to close the envelope and a long flap contiguous to the other end secured to one side of envelope to form a pocket, rigid marker means inserted in pocket and extending outwardly over short flap and engaging the short flap and holding it closed when the short flap is folded inwardly toward said pocket to close envelope.

Spout for Container, M. Siddons, Flint, Mich. U.S. 2,732,109, Jan. 24. In a container of the type having a top wall and at least one side wall, the combination therewith of a pouring spout comprising a relatively thin rectangular metallic blank having a pair of spaced-apart parallel side edges, a pair of spaced-apart parallel end edges, end edges being substantially shorter than side edges, a score line formed in one surface of blank extending between side edges parallel to but spaced from one of end edges, a pair of score lines formed in one surface of panel and extending parallel to but spaced from opposite side edges between first-mentioned score line and the other of the end edges, blank having one end portion thereof extending downwardly at an angle to the remaining portion thereof.

Shoulder-Supported Multiple Receptacle, L. J. Lauraitis, Wheatfield, Ind. U.S. 2,732,110, Jan. 24. A dual container structure comprising a pair of corresponding elongated open-top containers, each provided with an upwardly bowed longitudinally extending bottom portion defining transverse shoulder-engaging recess, a connecting member extending between and connecting said containers at corresponding rear ends thereof.

Container Filling Apparatus, A. L. Conrad, New Igeria, La. U.S. 2,732,112, Jan. 24. In a container filling apparatus, a horizontal tray for receiving filler material; means supporting the tray at one end thereof to leave substantially the entire length of the tray unobstructed marginally to enable a container having an open end and a closed end to be fitted over the other end of tray and substantially enclose the tray with the closed end of container substantially the same plane as other end of tray.

Machine for Filling and Capping Paper Cartons, J. E. Annen (to Sutherland Paper Co., Kalamazoo, Mich.). U.S. 2,732,114, Jan. 24. In a machine for filling truncated conical cartons having a cylindrical upper rim and capping said cartons with circular covers having depending cylindrical flanges, a capping station in upright position, a vertically reciprocable elevator positioned to receive said cartons individually from said translating means and move said cartons upwardly through a distance greater than the height of the cartons, a fixed socket plate positioned along the path of travel of elevator and forming a circular socket opening through which said cartons are translated.

Method and Apparatus for Applying Closures to Open Containers, B. W. Merrill (to Standard Packaging Corp., Chicago, Ill.). U.S. 2,732,116, Jan. 24. In a device for securing a metal foil closure to the perimeter of the top end of an open, metal foil container, said container having a bottom portion, a flange extending outwardly from the top of frusto-conical wall portion forming the perimeter of container, in combination; a device housing, a movable base table, a substantially stationary presser plate supported by housing over table, a forming die resiliently carried by table, means to move table upwardly causing presser plate to contact closure positioned upon container when said table is raised upwardly.

Molded Pulp Bait Container, A. H. Risch (to Pulp Reproduction Co., Milwaukee, Wis.). U.S. 2,732,119, Jan. 24. A live bait container comprising, a unitary molded pulp receptacle adapted to receive and retain a supply of water.

Tomato Tray, M. Glazer, Norfolk, Va. U.S. 2,732,129, Jan. 24. A foldable tray blank comprising a sheet of material scored along longitudinal and transverse lines to form a bottom, side walls and end walls, a pair of corner-forming panels at each end of the blank, each panel being integrally joined to side and end walls along said scores lines.

Display Box, H. P. McGovern (to Dennison Mfg. Co., Framingham, Mass.). U.S. 2,732,121, Jan. 24. A box blank comprising a sheet having lines of fold defining a base and side walls, the side walls being rectangular and their lengths being substantially equal to the corresponding dimensions of the base.

Shockproof Carton, H. V. Bolding (to The Bradley & Gilbert Co., Louisville,

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PLASTIC CLOSURES AND CONTAINERS

* TRADE MARK — THE BUCKEYE MOLDING COMPANY, MIAMISBURG, OHIO

U.S. patents digest

Ky.). U.S. 2,732,123, Jan. 24. A collapsible carton comprising four outer wall panels hingedly interconnected at their longitudinal edges to form an enclosed chamber rectangular in transverse cross section, two spaced dividing walls hingedly connected at their respective longitudinal edges to a pair of opposed outer wall panels, one of dividing walls having a cut positioned longitudinally and centrally of one end.

Manufacture of Paper Bags, C. Honsel, Bielefeld, Germany. U.S. 2,732,774, Jan. 31. An apparatus for the manufacture of cross-bottom paper bags from lengths of paper tubes, comprising in combination: a main roller, a pair of counter-rollers arranged parallel to main roller at a distance from each other and engaging main roller so as to advance a length of paper tube inserted between main roller and counter-rollers.

Cap for Plastic Extrusion Tube Container, A. Nichols (to Celluplastic Corp., a corporation of New Jersey). U.S. 2,732,870, Jan. 31. A cap adapted to stretch and thereby seal the mouth of an extrusion tube container of plastic material, said cap comprising a thin-walled hollow stem of substantially rigid plastic material which substantially conforms to shape of interior walls of tube.

Package of Gloves, S. S. Hall (to The Surety Rubber Co., Carrollton, Ohio). U.S. 2,732,934, Jan. 31. A packaging device for a pair of gloves located one upon the other in flat condition, the packaging device comprising a sheet of substantially rigid material located between the two gloves, the sheeting being substantially the width of the wrist portions of the gloves and of sufficient length to extend from the junction of the hand and wrist portions of the gloves to the lower ends thereof.

Combination Tissue Pack and Disposal Receptacle, E. G. Gui, San Diego, Calif. (one-half to John M. Wilson, San Diego, Calif.). U.S. 2,732,935, Jan. 31. A combination tissue pack and disposal receptacle comprising; an outer wrapper, a flattened tubular receptacle in wrapper, a plurality of tissues between the outside of receptacle and wrapper, both ends of the wrapper being sealed to enclose the tissues.

Brassiere Display and Merchandising Package, C. C. Braun (to Maiden Form Brassiere Co., Inc., New York). U.S. 2,732,937, Jan. 31. A brassiere display and merchandising package, for sale as a unit, consisting of a panel of substantially rigid material of greater height than width, the top and bottom of the panel being formed with rearwardly and inwardly directed flanges, the panel near its top being formed with an arcuate slot extending through an edge of the panel and thence curving upwardly to a point spaced from the opposite edge of the panel.

Handled Foldable Carrier for Bottles and Refreshments, S. G. Siddall, Orangeville, Ont., Canada. U.S. 2,732,-

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983, Jan. 31. An article carrier embodying in combination a container comprising a strip of flexible material creased to provide a container body having a bottom part for food.

Article Stacking and Boxing Apparatus, B. D. Dans (to Duncan Corp., Charlotte, N. C.). U.S. 2,732,984, Jan. 31. Apparatus for boxing articles comprising a turret having a plurality of circularly arranged pockets thereon with means for successively feeding articles into one of the pockets.

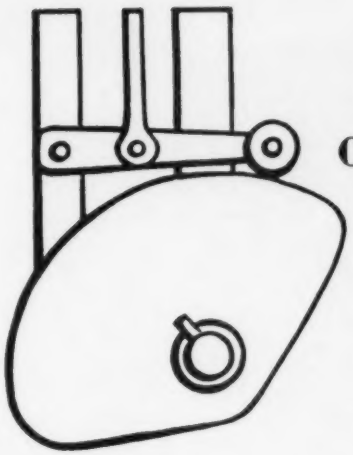
Apparatus for Packing and Sealing Bag-Like Containers, E. Feinstein, New York. U.S. 2,732,988, Jan. 31. In a machine, a bag support for holding a bag with its open top directed upwardly, a vertically movable plunger and means for moving the same to and from the top of the bag while the bag rests on said support, bag-dimension means carried by the plunger and entering into the bag in company with the plunger and distending the same to form the top of the bag into slit-like formation after the plunger has entered into top of bag.

Dispensing Apparatus for Double Bags, C. B. Harker (to Bartelt Engineering Co., Rockford, Ill.). U.S. 2,732,989, Jan. 31. In a packaging machine having first and second stations horizontally spaced successively along a path of advance of bags to be filled, the combination of, a frame, a lever disposed above the path and fulcrumed on frame at a point beyond second station to swing about a horizontal axis extending transversely of the path and having a filling spout disposed above the second station and mounted on lever for bodily movement therewith.

Container Capping Devices, W. E. Glensky (to The West Co., Inc., Phoenixville, Pa.). U.S. 2,732,990, Jan. 31. Apparatus for applying to a bottle having a head, having an outer wall, an inner mouth and a substantially flat annular region of substantial width therebetween, a closure assembly comprising a flat-topped metal cap and a rubber disk snugly fitting cap against flat top.

Container-Capping Machine, E. N. de Bastos and A. W. Weller (to Resina Automatic Machinery Co., Inc., Brooklyn, N. Y.). U.S. 2,732,991, Jan. 31. For use with a container capping machine having means to feed a succession of caps and a succession of containers, which meet at a capping location, and means for rotating caps to threadedly engage the same upon the container.

Radio Tube Cartons, V. R. Pantalone (to Federal Paper Board Co., Inc., Bogota, N. J.). U.S. 2,732,996, Jan. 31. A one-piece collapsible radio-tube carton, comprising panels articulated to one another along side fold lines in this order: four outer wall panels of substantially equal width; a glue panel narrower than outer wall panels, the glue panel being articulated to the fourth outer wall panel and adhered to the first outer wall panel; a tuck flap



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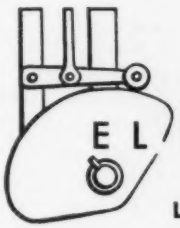

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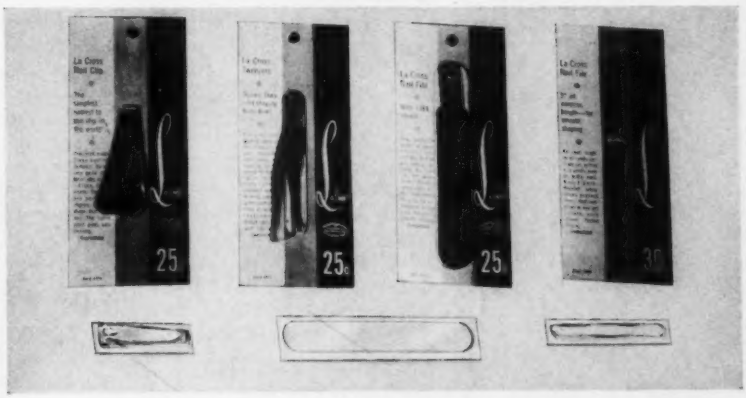

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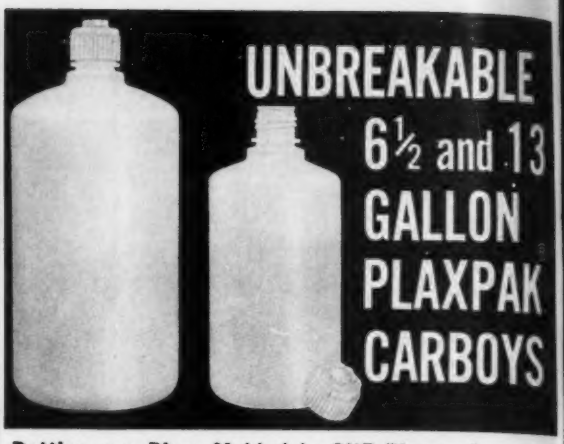

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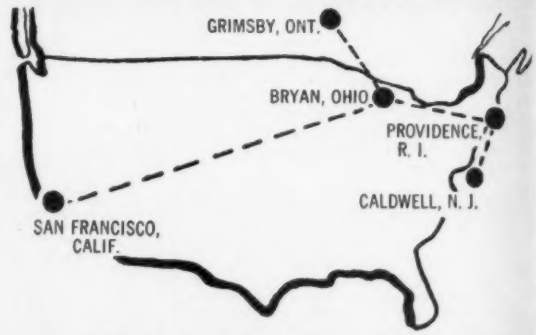

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articulated to end panel and at least three inner wall panels, of which each of the first two is wider than the glue panel, but narrower than the outer panels.

Package Wrapping with Opening Means, H. Ramsey, Jr., Rochester, N. Y. U.S. 2,732,998, Jan. 31. A wrapping for a commercial package comprising a sheet of flexible thermoplastic wrapping material wrapped smoothly around the top and two opposite ends of the package and folded over the bottom, with the two end portions of the wrapping in overlapping and underlying relationship on the bottom of the package adjacent one end thereof.

Bag-Filling Machine, E. M. Lau (to Black Products Co., Chicago). U.S. 2,733,040, Jan. 31. In a bag-filling machine having a hopper, an auger for removing material from the hopper, drive means for the auger and control means for drive means, the combination of horizontally extending spout means including an internal spout and an external spout assembly.

Box-Blank Folding Machine, W. P. Fergnani (to Post Machinery Co., Beverly, Mass.). U.S. 2,733,643, Feb. 7. A box-blank folding machine comprising a pair of carrier belts having opposed reaches for engaging a blank therebetween and feeding it along a predetermined path.

Bag-Filling Apparatus, W. A. N. Bos Houwers, (to Woodward & Dickerson, Inc., Philadelphia, Pa.). U.S. 2,733,848, Feb. 7. An apparatus for filling a bag with pulverulent material, including a storage bin for pulverulent material, a hopper disposed beneath storage bin and in solid communication therewith adapted to contain pulverulent material, and a transfer conduit intermediate storage bin and hopper for transferring pulverulent materials from storage bin to hopper.

Sealing Apparatus, S. C. Trenchard, Audubon, N. J. U.S. 2,733,849, Feb. 7. An apparatus for sealing the elongated necks of containers formed from a thermoplastic material comprising, in combination, a casing formed with a chamber for reception of the container, an anvil plate positioned to be overlain by container neck, a member movable toward anvil plate to press the container neck thereagainst, means for heating the anvil plate and means for heating the movable member.

Containers, M. L. Williamson (to National Folding Box Co., Inc., New Haven, Conn.). U.S. 2,733,852, Feb. 7. A collapsible container comprising a body having a plurality of side walls connected together to form a polygonal tube, a plurality of said walls each having an edge terminating in a flap folded inwardly of tube to form a hollow ledge for supporting an end-closure member, hollow ledge together with the section of side wall adjacent thereto being triangular in cross section, flap fold lines defining an inner marginal panel.

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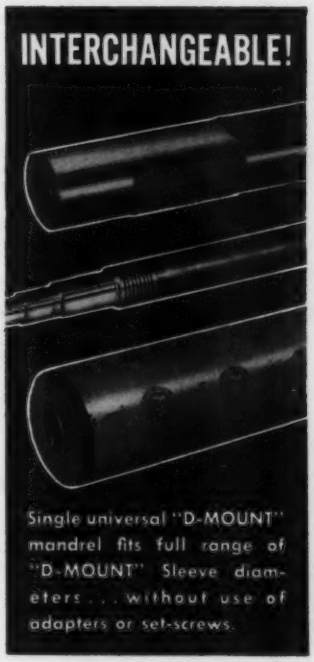
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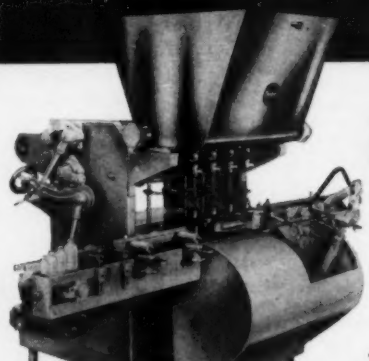

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PAPER CONVERTING MACHINERY. 24-page illustrated booklet describes a line of web processing machines, including models suitable for the coating, laminating, printing and general winding of paper and plastics films. Dilts Division, Black-Clawson Co. (D-651)

CONTAINER UNSCRAMBLER. Illustrated brochure describes company's "Walkie-Pushie" unscrambler-feeder machine that handles up to 500 bottles, jars and cans without rubbing or bumping of the containers. Island Equipment Corp. (D-652)

LABELING MACHINE. Illustrated folder describes the "World Model S" semi-automatic electric labeling machine, designed to apply front, back and wrap-around labels to containers ranging in size from ampoules and vials up to gallon jugs. Economic Machinery Co. (D-653)

RE-USABLE PLASTIC BOX. Literature describes transparent rigid plastic boxes with hinged tops, suitable for packaging many types of small items. Tri-State Molding Co., Inc. (D-654)

DISPLAY OF MULTI-UNIT PACKAGES. Illustrated brochure shows various ways to stack "Cluster-Pak" multi-unit cartons in store floor displays. Atlanta Paper Co. (D-655)

PLASTIC SQUAT JARS. Illustrated literature describes line of light-weight polystyrene and polyethylene squat jars with plain or fluted side walls in capacities from ½ to 16 ounces and in a wide range of colors. Sizes, prices are listed. Parkway Plastics, Inc. (D-656)

PACKAGING MARKET RESEARCH. Brochure describes organization that specializes in providing market research services to companies in the packaging field. Services include sales forecasts, market analyses and product research. Modern Plastics Research Corp. (D-657)

NEW PLAN FOR PACKAGE PRODUCTION. 4-page booklet describes company's "Craddock Plan" for coordinating the efforts of package designer and printer in the preparation of package wraps to provide improved reproduction and better product protection. The Specialty Paper Co. (D-658)

FILLING MACHINE FOR LIQUID PRODUCTS. Folder contains a variety of illustrated literature describing company's "Electromatic" liquid filling machines for standard containers and for low-pressure aerosol packs. Mojonnier Dawson Co. (D-659)

101 USES FOR ELECTRIC HEAT. 30-page illustrated booklet describes 101 uses for company's "Chromalox" strip, ring, tubular, and cartridge heaters, including such uses as drying ink during printing and eliminating static during web processing. Edwin L. Wiegand Co. (D-660)

PACKAGE IMPRINTING MACHINE. Illustrated folder describes Model 4800 package imprinting machine, designed to date, code or otherwise mark either cartons or flat stock at speeds up to 7500 per hour. Pitney-Bowes, Inc. (D-661)

HEAT SEALING EQUIPMENT. Illustrated catalog describes line of "Thermal Impulse" heat-sealing machines for use with thermo-plastic films. Models available for seals up to 42 inches long at production speeds up to 20 seals a minute. Vertrod Corp. (D-662)

INTERIOR PACKAGING MATERIAL. Illustrated booklet describes, shows uses for various types of "Kimpak" cushioning materials, designed to provide protection with minimum bulk and shipping weight. Sizes available are given. Kimberly-Clark Cor,). (D-663)

PRODUCE PREPACKAGING FILM. 12-page illustrated booklet describes advantages and suggests methods of prepackaging produce in "Visqueen" polyethylene bags, and lists appropriate bag sizes for many fruits and vegetables. The Visking Corp. (D-664)

AUTOMATIC IMPRINTING MACHINE. Illustrated literature describes, presents diagrams of company's "Markocoder" automatic imprinting machine for coding bottoms of bottles, cans, jars. Adolph Gottscho, Inc. (D-665)

CLEAR PLASTIC CONTAINERS. Illustrated literature lists stock sizes of a line of clear plastic containers, including types suitable for use with automatic filling and capping equipment. Southern California Plastic Co. (D-666)

HOW TO PACKAGE WITH FILAMENT TAPES. Illustrated folder shows many ways "Scotch" pressure sensitive filament tapes can be used to hold, bundle, reinforce and palletize; also lists physical properties of three types. Minnesota Mining & Mfg. Co. (D-667)

AUTOMATIC LUBRICATOR. Illustrated folder describes a high-pressure automatic machinery lubricator that delivers metered quantities of oil at predetermined intervals to operating equipment. Bijur Lubricating Corp. (D-668)

ENVELOPE PACKAGES. Folder describes advantages of envelopes as packages, and lists the characteristics of company's line of 12 basic styles, available in various materials and sizes. United States Envelope Co. (D-669)

FLOUR PACKAGING MACHINE. Illustrated literature describes and lists specifications for company's "Type VUV" automatic flour packaging machine for use with square-bottom, self-opening bags; fills up to 1900 bags per hour. Arenco Machine Co., Inc. (D-670)

TRANSPARENT PLASTIC PACKAGES. Illustrated 8-page catalog gives details about company's line of standard and custom-design transparent plastic packages, including such types as "blister," custom contour and slide-cover packages. Plastic Artisans, Inc. (D-671)

RUBBER PLATE MOUNTER-PROOFER. Illustrated folder describes, lists specifications for company's rubber plate mounter-proofer, designed for use with presses with fixed or removable plate cylinders. Moestype Materials, Inc. (D-672)

HANDBOOK ON COLLAPSIBLE TUBES. 12-page booklet discusses every stage in the process of selecting the proper collapsible tube for a product. Lists standard tube, neck and cap sizes and gives tables of capacities and conversions. National Collapsible Tube Co. (D-673)

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STRAIGHT LINE LIQUID FILLERS. Illustrated 8-page booklet describes operation of line of automatic and semi-automatic straight-line vacuum filling machines, designed to fill liquids into a wide range of bottles and tin cans. Specifications included. Pneumatic Scale Corp., Ltd. (D-674)

BARRIER PACKAGING MATERIALS. Folder contains samples, lists physical characteristics of company's "Flexkin" barrier packaging materials, formed of various laminations of cotton sheeting, kraft paper, aluminum foil, and vinyl and polyethylene films. Acme Backing Corp. (D-675)

MULTI-WALL BAG PACKERS. 6-page illustrated folder describes line of "Auger-matic" multi-wall valve bag filling machines. Types included are automatic weigher, shaker, automatic weigher-shaker, and pre-weigher. E. D. Coddington Mfg. Co. (D-676)

FLEXIBLE PLASTIC CLOSURES. Illustrated literature describes features and applications for "Flexseel" snap-fit, leakproof polyethylene closures for wide-mouth glass and plastic containers. Closures are available in colors, can be used with automatic capping equipment. Buckeye Molding Co. (D-677)

PACKAGING PRODUCE. 16-page illustrated booklet gives step-by-step guidance to food retailers in setting up a produce pre-packaging system in retail stores; lists the produce bags made by this company, shows loading and sealing equipment. The Dobeckmun Co. (D-678)

MULTI-UNIT CARTON MACHINES. 20-page illustrated catalog describes line of eight machines for forming, packing, sealing and conveying multi-unit cartons containing cans; one machine has capacity of 168 six-packs per minute. Dacam Corp. (D-679)

AIR-OPERATED CARTON STAPLER. 4-page illustrated brochure describes lightweight, portable hand stapler powered by a two-cycle air motor. International Staple & Machine Co. (D-680)

CELLOPHANE SHEETING & STACKING MACHINE. Illustrated literature lists specifications for "Model UD" cellophane sheeting and stacking machine that automatically cuts sheets up to 28 in. square from two rolls at speeds up to 5280 full-width sheets per hour. Peters Machinery Co. (D-681)

AUTOMATIC BAG FILLING EQUIPMENT. Illustrated brochure describes company's "Model H Bag Master System," consisting of three machines that automatically weigh-fill such lightweight dry products as potato chips into bags at speeds up to 55 a minute. Wright Machinery Co. (D-682)

TWO-COLOR GRAVURE PRESS. Illustrated folder describes and lists features of company's "Econometto" two-color rotogravure press, designed for printing on a 31 in. web of cellophane, glassine, laminated foils or paper as fast as 250 feet per minute. American Type Founders. (D-683)

PROTECTIVE PACKAGING MATERIAL. Illustrated folder describes various ways that "Plypak" corrugated packaging material can be used as a protective interior wrapping for items of varying shapes. The Hinde & Dauch Paper Co. (D-684)

CAN TESTING EQUIPMENT. 12-page illustrated catalog describes, lists specifications for a line of can testing machines, including automatic air can testers for round, square and rectangular cans on high and medium speed lines. Also shows hand-operated air and water testers. E. W. Bliss Co. (D-685)

BOTTOM BOX MACHINES. Illustrated brochure lists specifications for company's two bottom fold box-making machines, the "Model 7M," with top feed, and the "Model 7A," with bottom feed; both can make many styles of bottom fold boxes. International Paper Box Machine Co. (D-686)

FILM PACKAGING MATERIAL. Booklet gives information on "Pliofilm," a thermoplastic, heat-sealing film. Typical packaging applications are described. A detailed table of physical test data and yields is included. The Goodyear Tire & Rubber Company. (D-687)

TUCK-END CLOSING MACHINE. Illustrated data sheet gives specifications for machine that closes reverse or straight tuck-end boxes at speeds from 90 to 120 boxes per minute. Rex Packaging Machine Co. (D-688)

HUMIDIFICATION MANUAL. Illustrated manual discusses effects of humidity control on paper conditioning, printing, paper cartons, paper bags and cellophane. Company's line of industrial humidifiers is described and shown, data given. Walton Laboratories, Inc. (D-689)

TABLET AND CAPSULE COUNTING MACHINES. Technical literature gives data on two machines that count capsules, tablets, and other small items with uniform diameters, then put them into bottles, vials, boxes, etc. The Burnet Co. (D-690)

COLLAPSIBLE METAL TUBE SELECTION. Booklet contains specifications, features, and application check list of collapsible metal tubes. Discusses five basic metals employed in tube making and their applications. Also lists cap sizes and types, and cap liners. Peerless Tube Co. (D-691)

PREPACKAGING. Folder describes open-top partitioned cardboard tray for prepacking produce that requires no overwrap to keep contents from spilling. An accessory carton forming unit is also described. Alford Cartons. (D-692)

AEROSOL VALVES. Illustrated bulletin gives engineering data on line of aerosol spray and foam valves, including models for dispensing most types of liquid and semi-liquid materials. Oil equipment Laboratories, Inc. (D-693)

CONVEYOR-LINE MARKING DEVICE. Illustrated data sheet describes rotary coder for conveyor-line marking of boxes and packages. Krengel Manufacturing Company, Inc. (D-694)

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MODERN PACKAGING

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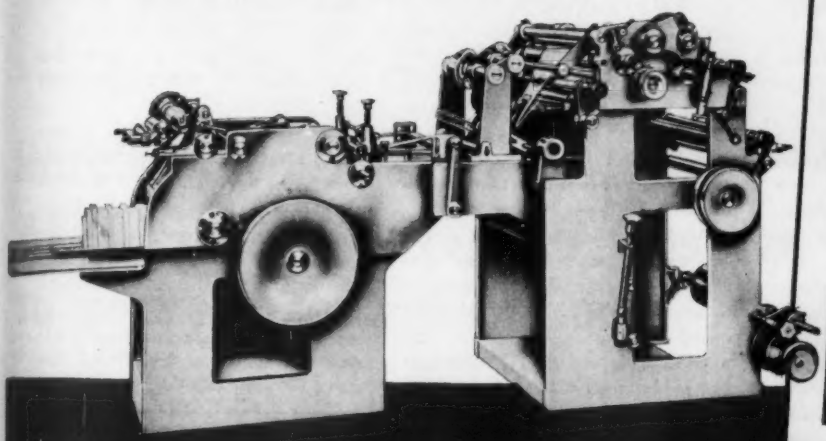
H. H. H. CELLO-MATADOR

fastest machine ever built
for making glue pasted cellophane bags—



Compact, easy to operate, equipped with every device for accurate, high-speed production. Precision workmanship throughout.

Makes bags of the types illustrated in a wide range of sizes. Acclaimed by experts as an outstanding machine and recognized as an investment in better production.

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Standardizing carton tucks and flaps

[*Continued from page 94*]

showed lack of uniformity was inevitable with traditional "free-hand" methods of multiple die making. For years, apparently, flaps have been contoured in any manner a die or model maker deemed best. And variations of one die to the next, even of only 0.001 in., cause trouble on high-speed machinery.

Research initiated to eliminate free-hand knife shaping of dies and thereby the guesswork in a most critical operation of folding-carton manufacture has resulted in the recommended standard contours for all tucks and flaps in relation to size and special requirements of the most widely used types of tuck-end cartons. The specifications cover requirements for an endless variety of cartons for foods, drugs, cosmetics, toiletries, beverages, flavoring extracts, tobacco products and a multitude of others.

The specific tuck measurements and contours represent exhaustive study of carton users' complaints on machine workability, of major machine manufacturers' theories of ideal shaping of tucks and flaps, and of numerous experiments with different curvatures to find one that could be shaped from a standard "die piece," thus eliminating all free-hand knife bending.

After determining inside and outside dimensions of a carton that will "clear" the product, the sample maker needs only to trace around the proper template curve designated for the carton in the selected size and draw side-flap angles determined by referring to the general specifications sheet. The contour guides on the template are provided in accordance with varying front-panel widths.

The work of setting radii on a compass and the determining of angles on a protractor to establish contours has been eliminated.

After establishing correct carton size by the hand model, the purchaser may order his box supplier to proceed with die work. No hand model or drawing need be forwarded, it is reported. Instructions can read simply: "Reverse tuck-end carton, slit locks on bottom, inside dimensions 2 in. by 1¼ in. by 4 in." Actually, instructions may be given by telephone. A carton of the above dimensions automatically calls for corresponding tuck lengths, side flap angles and glue lap width set forth on the general specifications sheet.

With the specifications sheet as a guide and a rack of standard die pieces, the die maker can use his bending machine to produce the necessary number of knives—all exactly alike and bent to the correct contour for the established carton dimensions. A given hardness of cutting rule and correct die piece, in one complete downward stroke on the bending machine to the stop point, reportedly will give the exact bend every time.

The method is available to any manufacturer without charge in the form of a work kit which includes the transparent plastic contour template, mechanical specification drawing, instruction booklet and "before and after" carton samples.

Credit: *"Unituck System" of tuck-flap carton standardization developed by The Lord Baltimore Press, Inc., 1601 Edison Hwy., Baltimore 13, Md.*

WHEN YOU NEED

fruit cake
chocolate
cookie
hard candy

nut, cheese, pretzel or glacé fruit

TINS
... buy from SPECIALISTS!

Enjoy better quality, bigger variety, faster delivery, custom designing. Beauty, too, coupled with exclusive patterns, designed to help sell your product! For quantity orders, we'll gladly design an exclusive package for you alone. Smaller requirements can be filled from our stock sizes and designs. For samples and quantity prices . . . call or write to

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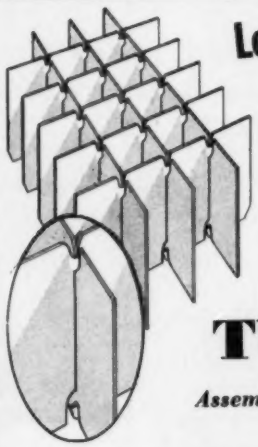

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Assembled Self-Locking Partitions

TWIN-LOK partitions provide precision alignment . . . combination top and bottom lock assures that each section is held exactly in the same position.

Rugged construction and extra rigid design for maximum protection. Requires minimum storage space. Made of finest quality hard-sized container chip—prevents label scuffing. Shipped pre-assembled and ready for use . . . reduces labor costs in handling.

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Fibre Partitions, Inc.
MAXIMUM PROTECTION FOR UNIT PACKAGING
2300 South Adams
PEORIA, ILLINOIS

Here's how ATLAS uses *Tri-Sure*® Closures to prevent contamination

Sorbo†—a moisture conditioner that is widely used in the pharmaceutical, cosmetic and food industries—is one of many important new chemicals developed by Atlas Powder Company.

Atlas produces Sorbo and other chemicals under conditions that maintain utmost purity throughout processing. And to assure the *delivery* of a pure product to every customer, the entire line of Atlas Chemicals shipped in steel drums is equipped and sealed with *Tri-Sure* Closures.*

Atlas uses Tri-Sure Closures to be sure of tight, leak-proof, tamper-proof drums. And for additional protection against the possibility of contamination, Atlas specifies the combination of the Tri-Sure *Aluminum Flange* and Tri-Sure *Polyethylene Plug* which offer complete protection for Sorbitol emulsifiers and other Atlas Chemicals.

Whether your products are chemicals, foods, oils, paints or drugs the best closures for your containers are *Tri-Sure.* Adopt the time-tested practise that is *standard* with the world's leading shippers:—when you order drums always specify "*Tri-Sure Closures*".

Always specify
Tri-Sure
Reg. U. S. Pat. Off.
CLOSURES

†Sorbo (70% sorbitol solution) is a registered trademark of Atlas Powder Company.

*The Tri-Sure Trademark is a mark of reliability backed by over 35 years serving industry. It tells your customers that genuine Tri-Sure Flanges (inserted with genuine Tri-Sure dies), Plugs and Seals have been used.

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PACKAGING PRINT OF THE MONTH

BOX COVERING by HY-SIL

THIS colorful wrapping was printed on cylinders engraved by Chambers-Storck Co.

It's typical of the quality packaging materials . . . in paper, plastics and foil . . . produced by concerns that rely on Chambers-Storck for fidelity of detail, long-run durability, delivery-as-promised, complete confidence on design.

For prompt, reliable attention to *your* needs in engraved rolls — for printing any packaging materials — one color or four color rolls in any size, contact Chambers-Storck, *quality* photoengravers since 1933.

CHAMBERS-STORCK COMPANY, INCORPORATED

Quality Gravure Cylinders

NORWICH • CONNECTICUT

Plastic package covers

Alexander H. Kerr & Co., Los Angeles glass container manufacturer, has begun experimental shipment of palletized cases of glass jars that

are protected by polyethylene slip covers. The rectangular covers fit each pallet load snugly enough to protect the cartons from dust, rain and scuffing due to friction between shifting loads. They reportedly result in time and labor savings in loading, compared to conventional scuff-protection methods.

First test loads, shown here, were shipped to Puritan Preserve Co., San Francisco.

PMMI show

Space assignments at the Packaging Machinery & Materials Exposition for 1956 have been made to 98 companies who plan to exhibit at the show, which will be held at the Cleveland Public Auditorium, Sept. 11-14. It is sponsored by the Packaging Machinery Mfrs. Institute.

Speaking at a space-assignment luncheon, W. J. Bronander, Jr., Scandia Mfg. Co., PMMI vice president, told the exhibitors, "This exposition will be a 'packaging only' show on a technical level. With more than 66% of the exhibit space contracted for, it is well on its way to being a successful show."

CORRECTION. The address of the Batchelder Engineering Co., manufacturer of the exact-count filler illustrated on p. 202, MODERN PACKAGING, March, 1956, is 125 Main St., Springfield, Vt.

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A Symbol of fine
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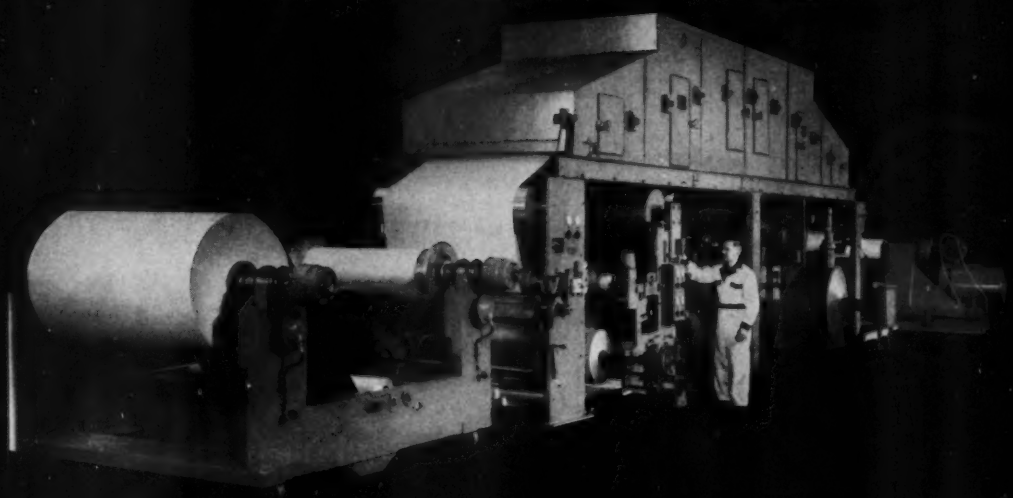
MERCURY MACHINES—PACESETTERS FOR THE FOLDING CARTON INDUSTRY

DESIGNED TO DO MANY EXACTING JOBS... AND DO THEM BETTER



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NEW ALL-PURPOSE LAMINATOR

. . . for combining foil, film or paper to paper or boxboard, for coating or gravure printing. All of the advanced engineering and built-in ruggedness which characterize Mercury machines. The web-fed method at its best . . . by an organization specializing in web-fed operation.

A Mercury representative can be most helpful in discussing with you your standard or special laminating or coating problems. Write or phone for an interview, at your convenience.

Profit Producing Machinery for Paper Convertors

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THE CENPRO CORPORATION
BOX 88
NORTHFIELD (CHICAGO) ILLINOIS

Top variety-store packages for 1956

Twenty-one variety-store packages were singled out for outstanding recognition in the 1956 annual packaging competition sponsored by *Variety Store Merchandiser*. Awards were made in New York, March 16. The seven gold award winners in their respective classifications are as follows:

Household & housewares: Gem, Inc., for Gem Nylon Dust Mop package, designed and manufactured by Bruce Carton Co. Cellulose acetate window by Celanese Corp. of America. This package also had the distinction of receiving the bronze award as the outstanding variety-store package of the year.

Cosmetics & toilet goods: Andrew Jergens Co., for Jergens Lotion "tear drop" package. Designer, Donald Deskey Associates. Bottle supplied by the Tygart Valley Glass Co. Foil label supplied by Reynolds Metals Co.

Toys & games: Kusan, Inc., for Kocomotive, Ltd. package. Designer, William Neal of Bradley & Gilbert Co., which manufactured the folding box. Acetate for the box window supplied by E. I. Du Pont de Nemours & Co., Inc.

Hardware, paint & electric: Wiring Device Dept. of General Electric Co. for ironing cord holder package, designed by Connie Kiwan and Calvin Nickerson of GE. Card by Pioneer Folding Box Co.

Notions & related items: Handcraft Mfg. Co. for men's handkerchief in lapel suit box package designed by Joseph Gindi and Joseph Mizrahi, partners, Handcraft Mfg. Co. Cellophane wrap supplied by Wrapture, Inc. Folding box supplied by Columbia Lithographic. Display material supplied by the National Container Co.

Stationery: Assemblix, Inc., div. Dorothy Flicek Industries, Inc., for Glitter bubble card, designed by Leo J. Kelly, Jr. Card, Morris Paper Mills.

Miscellaneous: Spangler Candy Co. for Six-Pak 5-cent A-Z Canes package designed by Sidney Dickens. Folding box supplied by the Crowell Carton Co. Cellophane wrap supplied by the Avisco Film Div. of American Viscose Corp.

Gold award winners in the seven classes: (top row, from left) hardware, paint & electric; notions & related items; toys & games; stationery; (bottom row, left to right) cosmetics & toilet goods; household & housewares; miscellaneous.

NOW...

a production line with built-in versatility
to meet changing market requirements for your products

Protection . . . against changing package sizes or number of packages per carton. A Bartelt machine can be adjusted to produce a variety of sizes and combinations of packages such as those illustrated at the right.

Protection . . . for your product. Pouches can be made from inexpensive webs or the finest barriers using laminated stock depending on product shelf-life requirements.

Protection . . . against high labor costs. Completely automatic from roll stock to finished carton.

Protection against machine production losses. Bartelt machines are built to machine tool precision from the highest quality materials.

Write today for information on the Bartelt Packaging Line!

1 POUCH PER CARTON

2 POUCHES PER CARTON

4 POUCHES PER CARTON

3 POUCHES PER CARTON

BARTELT ENGINEERING CO.

1900 HARRISON AVENUE
ROCKFORD, ILLINOIS

New York Office 370 Lexington Ave.

"Machinery for Creative Packaging"

Why plastic packages sell

Transparent necktie case adds gift appeal—improves display—ends soiling!

Here's a striking example of how packaging in Monsanto Lustrex is ringing up profitable new business at point of purchase.

When quality neckware is boxed in crystal-clear Lustrex, shoppers stop . . . look . . . and buy.

Patterns and textures display to perfection in the handsome transparent packages. Ties are protected from the careless handling that leads to markdowns. And customers are quick to appreciate the bonus value of the re-usable box.

The neckware cases pictured are molded of Monsanto Lustrex styrene plastic by Bradley Associates, Inc., Chicago.

Lustrex is lightweight, durable, versatile. Every day it is creating more sales-making packages . . . high-fashion containers for luxury merchandise . . . low-cost containers for food, dairy and impulse items.

Monsanto will gladly put you in touch with plastic packaging specialists who will help you work out your container requirements. Write Monsanto Chemical Company, Plastics Division, Room 649, Springfield 2, Mass.

Talk to Monsanto about packaging your products in

LUSTREX*

styrene plastic

MONSANTO

Monsanto also supplies polyethylene and cellulose acetate for packaging.

*LUSTREX: REG. U.S. PAT. OFF.

more soft goods every day

Ensemble showcase wraps up triple purchase –shirt, tie, cuff links!

Things began to happen when boys' shirts were boxed in a lightweight container made of Monsanto Vuepak cellulose acetate.

The package displays a shirt that's as clean and fresh as it was the day it was folded–together with a harmonizing tie and set of cuff links. Sales shot up immediately–stayed up week after week. Dealers sell three items instead of one–and love it!

The package pictured is made of Monsanto Vuepak by C. W. Zumbiel Co., Cincinnati, O. for The Kaynee Company, Cleveland, Ohio.

The unique properties of Vuepak make it an ideal material for low-cost packages. Vuepak has exceptional rigidity–forms easily into almost any shape.

Vuepak is crystal clear and can be both imprinted and embossed. It also combines readily with metal and cardboard.

Monsanto will gladly put you in touch with plastic packaging specialists who will help you work out your own container requirements. Write Monsanto Chemical Company, Plastics Division, Room 649, Springfield 2, Mass.

Talk to Monsanto about packaging your products in

VUEPAK*

cellulose acetate

MONSANTO

Monsanto also supplies styrene and polyethylene for packaging.

*VUEPAK, REG. U. S. PAT. OFF.

Strength of polyethylene-coated paper

[*Continued from page 144*]

plies of material which are tested simultaneously in comparison with the sum of the tests done individually.

The results of Frag tests given in Table III show the effect of ply interaction on polyethylene film and on kraft bag paper. It can be seen that four times the individual breaking energy of the 2-mil film is substantially more than the actual breaking energy of four plies tested simultaneously. The same comment can be made of the tests on single- and double-ply 4-mil film.

In the case of paper, we see that the trend of the effect of ply interaction is completely reversed. In this case, we have given the sum of two plies of 40-lb. kraft and two plies of 50-lb. kraft tested individually in comparison with the same combination tested simultaneously.

In all of the instances noted, the combination is stronger than the sum of the individuals. This effect is much greater in the cross direction than in the machine direction.

We have no explanation of the reason for these effects. However, the results are consistent and their application in multiwall bags becomes obvious.

For the sake of comparison and general interest, we have included tests on vinyl chloride film and on a number of different types of polyethylene film (Table IV). Most of these tests were done on 1.5-mil films. In cases where different thicknesses were tested, the original values are given and the arithmetical conversions to 1.5-mil film are given. We can note that the vinyl chloride film is approximately equal to the polyethylene in both static tensile times stretch and in burst strength.

Polyethylene films made from different resins and on different equipment show substantial differences in strength test results. PE-6, a Ziegler type, indicates that continuing work on this type of polyethylene may result in films of good quality, although most testing of this type of polyethylene has not indicated promise of such quality for packaging films.

Up to now, we have considered tests which apply essentially tensile loads at different rates, both continuously and intermittently to a break point. These tests have more or less correlation with drop tests performed on commercial bags.

We have another consideration with respect to bags and that is the effect of a puncture on a bag. We find that, if after puncture, the internal tear resistance of a bag is low, it will split and cause complete loss of contents. If the tear resistance is high, this puncture may result in little or no loss.

Table V shows the substantial increases in tearing strength given by polyethylene coatings on kraft paper. Fig. 6 indicates that this effect is considerably dependent on the degree of adhesion of the film to the paper. Our adhesion tester is a Schopper tensile tester modified to remove film from a 2½-in. strip of coated paper at a rate of 5 in. per minute at an angle of 170 deg.

The tests were done on individual paper samples having even coating and differing adhesion across the web. The results are given in terms of the tearing-strength difference due to the polyethylene film versus adhesion for 20-lb. film and for 8-lb. film.

The maximum tearing strength is obtained at fairly low adhesion values of 60 to 100. On this adhesion scale, 150 is just sufficient to begin to remove a layer of fibre from kraft multiwall paper.

Summary

Quickly reviewing this paper, we can note that the use of a polyethylene-coated paper wall in place of an asphalt-laminated-kraft wall results in improved bag performance as indicated by elevator drop tests and commercial performance. The static tensile and dynamic tensile tests indicate little reason why this improvement should occur. The Frag test, with its intermittent loading at high rates, indicates to a much greater extent why good commercial strength improvement due to polyethylene coating content has been observed in bags.

We have also noted that the Frag test is extremely versatile as to the materials which can be evaluated on the instrument. It also provides a laboratory test which can be used to observe the effect of ply interaction in multiwall bags.

Finally, we have considered the value of the tearing-strength test, the effect of polyethylene coating on the tear test and the relationship between coating adhesion and the tear value of the coated paper.

Obviously, many questions remain to be answered. Is the rate of loading of the Frag tester optimum or should it be higher? Can a really dynamic tensile tester be designed incorporating the graphic presentation of the Instron tester which could apply intermittent loads below the break point as well as loads at different strain rates to the break point?

What is the effect of ply interaction between polyethylene film and paper as exemplified by a polyethylene pouch inserted into a paper multiwall bag?

These and many other questions need to be answered. We hope this paper will lend some direction and produce some enthusiasm for finding the answers.

Folding Paper Box Assn. holds annual meeting

The folding paper box industry will soon become a billion-dollar-a-year business, reported Norman F. Greenway, president of the Folding Paper Box Assn., at the association's recent 30th annual meeting in San Francisco. Constantly increasing demand by consumers for better packaging and self-service retailing has been responsible for the industry's rapid growth, he said.

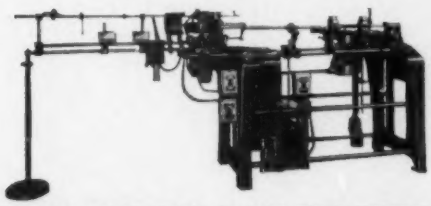
The 250 members attending the meeting also heard preliminary results of a recent survey sponsored by the association, which discovered that 75% of major food companies interviewed felt that a "new package means a big boost in sales," with over half of those reporting also stating that "most of all of the sales increase was due to the package." The study also revealed that 60% of the food manufacturers contacted expected to increase their use of cartons this year. Strongest packaging trend discovered was increased use of giant-size boxes and multipacks.

Other speakers included Don Belding, Foote, Cone & Belding; J. C. Morris, Ohio Boxboard Co., and Walter Landor, San Francisco industrial designer.

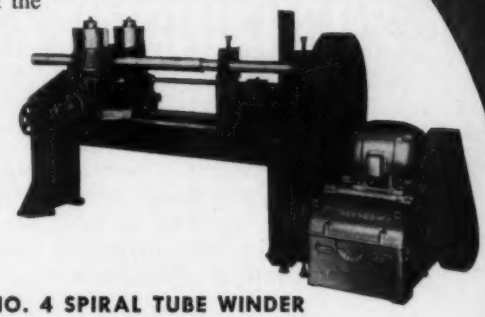
IT ADDS UP!

YOU GET MORE and better CONTAINERS PER $ WITH PAPER WOUND CANS, CORES AND TUBES

Knowlton machines are paying off TWO WAYS for leading manufacturers who have gone "paper-wound" as the most logical way to solve their container cost problem: (1) Paper wound containers not only *cost less* to produce—they offer definite *profit making advantages* to sales, display and shipping. (2) Cost conscious package people know that Knowlton machines are *proven money savers* that up output, last longer and cost less to maintain! Call a Knowlton man and get the complete paper-wound *profit story*.

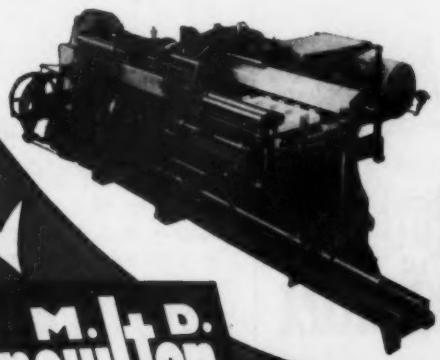


NO. 77 KNOWLTON SPIRAL TUBE WINDER AND CUT-OFF. Winds paper tubes from 2 to 5 plies and from ¼″ min. to 1″ max. in diameter.



NO. 4 SPIRAL TUBE WINDER

Winds paper tubes from ¾″ to 10″ diameter depending on number of plies: 2-5 plies up to 10″ diameter; 3-11 plies to 8″ diameter; 12-22 plies to 6″ diameter. Available with cut-offs and glue stands to fit all needs. Optional machines for cutting tubes in single or multiple lengths, rough or finished cores, or cutting light and heavy side walls up to ½″ thickness.



AUTOMATIC CONVOLUTE PAPER CAN WINDER

Winds paper can bodies from 1¾″ to 8″ in diameter on the round and from 1½″ to 8″ across diagonal corners on irregular shapes such as square, rectangular, oval, etc.

M. D. Knowlton COMPANY

ROCHESTER 14, NEW YORK

Scott

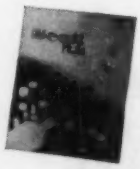
PLASTIC CLOSURES KEEP

Tussy budding beauty SALES

IN FULL BLOOM!

Here's what Tussy demands in a plastic closure: uniform size and color throughout million plus runs—perfect threads that function without binding or wedging—precise, flash-free detail—and a competitive price. That's why Tussy specifies plastic closures by Scott!

Standard . . . custom . . . specially engineered plastic closures in any size, shade, quantity—with any type of liner—can be produced to rigid size and delivery specifications by Scott. Investigate Scott's facilities—it may be the thrifty thing to do.



SEND TODAY FOR FULL COLOR BROCHURE.

Scott Plastics

410 Windsor Street • Hartford, Connecticut

Pre-punched cleanser

Recent publication of an article on the adoption of tape-covered pre-punched holes for the Bon Ami Cleanser can (see "Pre-Punched

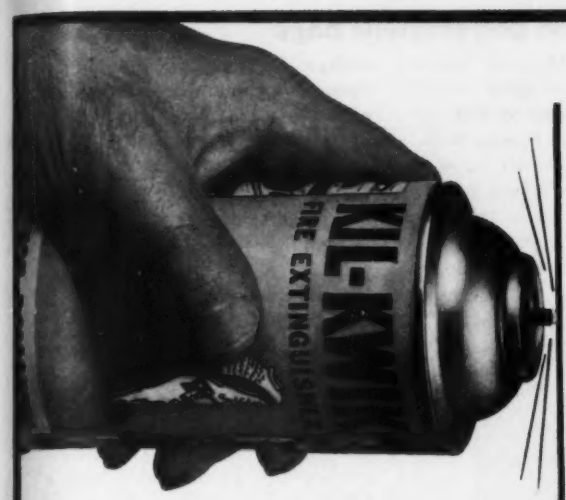
Cleanser," MODERN PACKAGING, Dec., 1955, p. 114) has brought to light a somewhat similar convenience feature used in several forms for 15 years on "Big 5" cleanser marketed by the United Chemical Co., Montreal.

In the original version, the cleanser came in tins with pre-punched holes covered by paperboard disks. However, these early disks lacked a tab and the paperboard partially plugged the holes. About two years ago, Big 5 developed an improved tin with pre-punched holes covered by a disk which has a handy tab that reportedly makes removal easier and does not plug the holes in the container.

The improved stoppers carry a sales message in both English and French, and are returnable by customers to be exchanged for premiums offered by the company.

Containers market

Demand for all types of containers continues at a high level, stronger than usual for this season, according to the latest report of the Containers Committee of the National Assn. of Purchasing Agents. The group predicts that demand will continue at this level and that a number of price increases can be expected. The only containers for which decreased demand and possibly lower prices appear likely during the next few months are cotton and burlap bags.



FIRE FIRE FIRE

NOW! SCHRADER ONE SHOT VALVES

1 STRIKE OR PRESS TIP AGAINST HARD SURFACE . . .

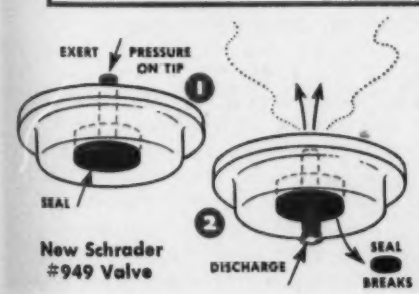
2 AND AIM CAN DOWN AT BASE OF FLAMES

FOR FIRE EXTINGUISHERS

Get into the growing home fire extinguisher market *fast* with Schrader. Order the single-discharge valves you need . . . now. Absolutely non-clogging, positive action of the plastic valves makes them practical for your mass selling. Gas-tight feature of valves makes your fire extinguisher safe to store, handle. Schrader is a leading name in Aerosol valve field. Depend on Schrader for economy and good service.

Schrader®
ESTABLISHED IN 1844

AEROSOL VALVES made by the manufacturer of the Standard Tire Valve since the first Automobile



New Schrader #949 Valve

MAIL THIS COUPON TODAY

A. SCHRADER'S SON
Division of Scovill Manufacturing Company, Incorporated Dept. MP
470 Vanderbilt Avenue, Brooklyn 38, N. Y.

Please send me samples of Schrader one shot aerosol valves ☐ Price list ☐

Name_____ Title_____

Company_____

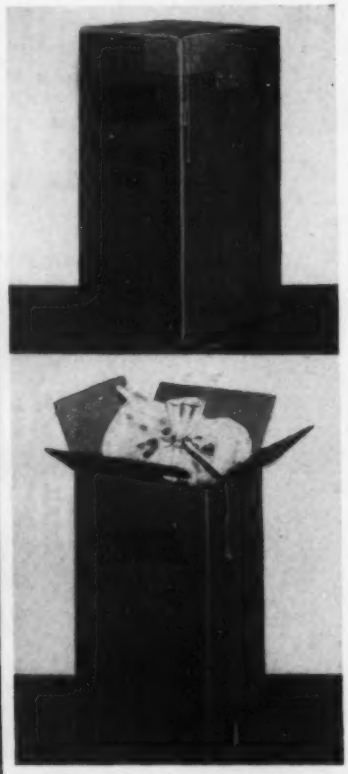
Address_____

Seals·Labels·Tags
by
CAMEO
heat seal
gummed
pressure sensitive
paper
foil
thermoplastic
die cut
embossed
printed
Sure to satisfy!
CAMEO
DIE AND LABEL COMPANY
154 WEST 14th STREET, NEW YORK, N. Y.
Chelsea 3-0228
Seal Label
The Mark of Quality

More cream in polyethylene bags

Further development of the bag-in-carton method of shipping cream* is seen in the adoption of this procedure by Producers Creamery Co., Springfield, Mo., after six years of development and use proved by more than 100,000 deliveries in 1955.

This new container, replacing the cumbersome milk can, is a single-service throw-away, with convenience features for filling and emptying differing from previously described arrangements.



The cream-in-a-bag method is designed to save labor, container and shipping costs, and to provide a sterile unit for longer refrigerated storage. It eliminates can-washing equipment, the keeping of can records and the hazards to the safety of employees handling heavy milk cans.

The Producers Creamery package consists of two elements: (1) a 34-in.-high liner made of 3-mil seamless polyethylene tubing, sealed continuously top and bottom except for a 5-in. opening at one end of the top for filling; (2) a water resistant 750-lb.-test corrugated carton measuring 9 by 9 by 19 in., equipped with a special lock bottom and with a four-flap top in which two corresponding flaps are notched to leave a 2½-in. square opening when the flaps are closed.

The liner is inserted into the open-top carton with the open portion of the bag top placed around the filling spout.

When the desired weight (50 lbs. of cream; 55 lbs. of condensed) is reached, the corner is tied off with a wire twist and a cord, and held so that, when flaps are gum-tape sealed, the cord protrudes from the carton top opening. By pulling the cord, the bag may be drawn through the carton opening, cut with knife or scissors and contents completely removed through the cut-off section. Discarded containers are usually burned.

Among reported advantages are: 30% more cream carried on trailer trucks because of light weight and space saving, refrigerated storage life up from 10 days to 18 days, cleaner dairies, no contamination and no troublesome container returns.

Credit: *Liqui-pak containers marketed exclusively by Chase Bag Co., 309 W. Jackson Blvd., Chicago; Lawrence Paper Co., Lawrence, Kan., and Container Corp. of America, 38 S. Dearborn St., Chicago.*

*See "Cream in a Bag," Modern Packaging, Nov., 1955, p. 110.

Micro-gas analysis—equipment and procedures

[*Continued from page 137*]

before observing the gas volume. Thus, by careful manipulation and adherence to the aforementioned precautions, it is possible to determine the oxygen and the carbon dioxide content of small quantities of gas to ±0.5%.

The micro-gas analysis procedure has been used by Red Star Yeast & Products Co. for the past seven years for determining the degree of air displacement in active dry yeast pouches, which must be free of oxygen, and to detect the presence of leaky pouches after they have been subjected to some exposure condi-

How Fitting For Fittings!

Vlchek PLASTIC BOXES

In a distinctive green color with name and parts numbers hot stamped in yellow, this attractive plastic box *holds* and *shows* the fittings. The numbers on the outside cover are always legible—for if they become soiled, they're easily wiped clean.

Used chiefly by gas service stations and car dealer lubrication departments, the package makes a big hit with the trade. Long in the grease fitting business, O'Brien Brass knows the importance of supplying products in the most *usable* and *practical* form—and, incidentally, reducing packaging costs—using Vlchek Plastic Boxes wherever applicable.

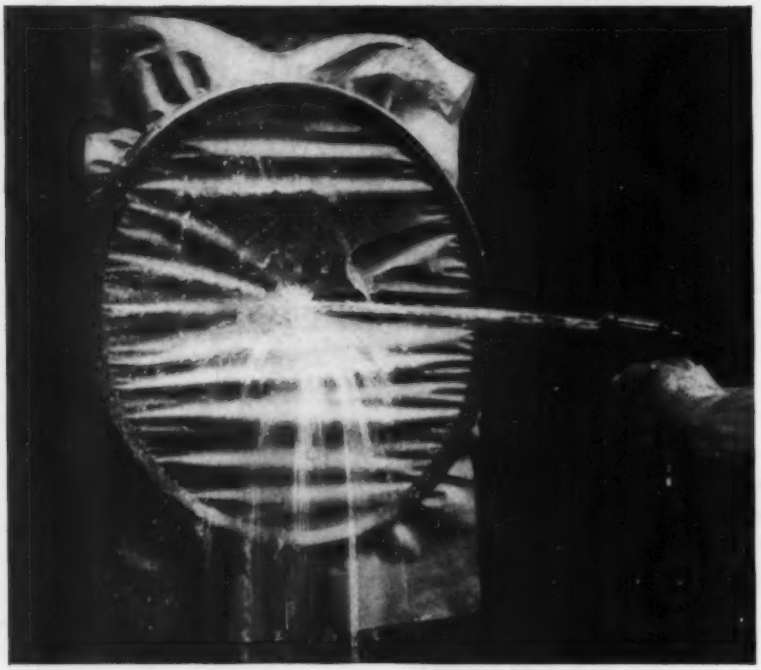
Mechanics save valuable time, using this *De luxe Grease Fitting Assortment* by O'Brien Brass Co. of Cleveland, Ohio

Scores of manufacturers ... foods, cosmetics, drugs, hardware and others ... know by experience the sales-making value of this package and its economy ... styled to the precise product requirements.

VLCHEK TOOL CO.

Proper packaging promotes profits ... let's talk it over.

When you want
HIGH **WET-STRENGTH**



Patapar® has it!

TEST Patapar Vegetable Parchment with a garden hose like this – or for some specific application in your business. *Patapar's wet-strength is sure and permanent.*

Grease proofness, too

New types of Patapar provide the most effective grease-proof barriers ever offered. Grease and oils will not spread or seep through. *There is no grease "crawl."*

New standards of package protection

As a packaging material, Patapar's effectiveness has been proven with butter, bacon, hams, sausage, margarine, lard, poultry, cheese, canned meats, seafoods and countless other products.

Made from pure cellulose, Patapar is odorless, tasteless, NON-TOXIC.

Furnished in sheets or rolls – plain or colorfully printed.

Tell us your intended application, and we'll send samples of the Patapar to fit your need. Write today.

Patapar
Vegetable Parchment
HI-WET-STRENGTH · GREASE-RESISTING

HEADQUARTERS FOR VEGETABLE PARCHMENT SINCE 1885

tions. The results obtained from these tests have been very satisfactory.

A typical set of analysis results is shown in Table I.

It is obvious in Table I that the micro-gas analysis method detects the presence of oxygen and carbon dioxide in micro-gas samples.

Summary and conclusions

The apparatus and test method described in this paper provide a simple, reliable analytical procedure for determining oxygen and carbon dioxide in a small-sized (less than three cubic centimeters) gas sample. It is thus ideally suited for determining the oxygen and carbon dioxide content of small flexible pouches.

Acknowledgements

The author is indebted to the late Dr. F. J. Rudert for his encouragement and helpful guidance during the development of this procedure. Mr. R. L. Mueller's assistance in preparing the drawings for this report is also greatly appreciated.

References

1. Snell & Biffen, Commercial Methods of Analysis, Chapter 34, McGraw-Hill Book Co.

Easy-to-ship mop

[*Continued from page 128*]

ink is an acid-resistant formulation selected to withstand the pad chemicals. The parchment wrapper was chosen, basically, as a barrier against the migration of the chemicals in the sheets of the mop. A sheet of cellophane protects the inner surface of the mop pads.

Both mop heads and refill packages are subsequently enclosed in individual polyethylene bags, seamed at the bottom, folded over at the top and closed with two patches of pressure-sensitive tape. Besides affording protection against handling and mechanical damage to the paper pads, the transparent bags provide complete visibility for the printed wrappers inside.

Credits: *Corrugated container by Commercial Corrugated Container Corp., 236 W. 17 St., New York 11. Patapar wrap by Paterson Parchment Paper Co., Bristol, Pa. Printing by Frank Bock, 270 Lafayette St., New York. Stapling equipment by Bostitch, Westerly, R. I.*

Mr. Gilbert O'Brien has made a career of packaging many of America's important consumer products. In World War II, he served as Chief of The Fresh Fruit and Vegetable Section of the Office of Price Administration. During the Korean War Mr. O'Brien was with the main Office of Price Stabilization.

"The *Window Box* is still the freshest packaging idea..."

"Acetate windows are a natural for packaging fresh fruit and vegetables," says Mr. Gilbert O'Brien, New York packaging consultant. "Acetate's moisture-vapor-gas transmission feature is an invaluable aid in inducing even ripening ... preserving taste and tenderness ... eliminating fogging up ... and inhibiting the growth of mold. This 'breathing' quality of acetate does away with the need of airholes and other perforations ... means cleaner, more sanitary contents."

For fresh fruits and vegetables as well as hundreds of non-food items, the window box with Acetate transparent film has few packaging rivals. If you want to know more about the economy and selling power of window boxes, write Celanese Corporation of America, Plastics Division, Dept. 208 D 290 Ferry Street, Newark 5, N. J. Canadian affiliate, Canadian Chemical Co., Limited, Montreal, Toronto and Vancouver.

Celanese*

*Reg. U. S. Pat. Off.

PACKAGING FILMS

no blind spots in

PLAX POLYFLEX® packaging

Now such perishables as meats and tomatoes are shedding "half-hiding" containers and slipping into trays of crystal-clear Polyflex. This tough plastic is odorless, tasteless, safe in direct contact with foods. It lets quality show "all over" while protecting contents in sturdy, semi-rigid trays, cartons, boxes or lids.

More than ever "squeeze" bottles by Plax lead the packaging parade. New, improved dispensing fitments, widest variety of stock bottle designs, unequalled facilities for meeting custom packaging needs make Plax the most logical source for plastic bottle packaging.

New Lined Plax Bottle (right) holds fluids that deform ordinary squeeze bottle.

Heavy-duty, stackable 16-gal. plastic carboy-drum will be made by Plax to design originated in Italy by Montecatini and Pirelli. (Patents applied for.)

See us at Packaging Show - Booth 411

PLAX

PLAX CORPORATION

P. O. BOX 1019 • HARTFORD, CONNECTICUT

In Canada: Plax Canada, Ltd., Montreal & Toronto

Window shades in vinyl

[*Continued from page 99*]

proper length. Retail store returns of the window shades have been minimized, the company reports, because, with visibility packaging, selections are made right the first time. There is less damage due to handling. Mass displays do a better job of impulse selling because of the array of product colors through the transparent packaging.

In a typical 25-day selling period last October, a leading variety store is reported to have sold $234.41 worth of Clopay window shades in the old paper wrappers. The following month, with the same merchandise in the new packages during a similar selling period, the same store sold $324.38 worth of window shades —an increase of 40%. The store set-up, counter location, display fixtures and selling price were unchanged, and there was no special promotion involved.

The only change was the new transparent packaging, which gives convincing evidence that the right package can increase sales in a matter of days.

Credit: *"Clopane" polyvinyl chloride film manufactured by the Clopay Corp., Clopay Sq., Cincinnati 14, Ohio.*

GE's tube box

[*Continued from page 115*]

installation data for the tube can be recorded by the studio.

Finally, the acetate carton is packed for shipment inside an odd-shaped corrugated container. This has a special corrugated extension on one end and a die-cut handle on the other, in order to make sure that the carton is always kept in an upright position.

Once the tube gets into the television studio, this bulky protective package is discarded, since the acetate carton's transparency gives adequate protection and error-proof identification of the contents.

Credits: *Acetate containers designed and produced by American Cellubox Corp., 27-01 Bridge Plaza N., Long Island City 1, N. Y., using cellulose acetate sheet produced by Joseph Davis Plastics Co., Arlington, N. J. Rubberized fibre pads by Queen City Tulatex Corp., Burlington, Vt. Polyethylene bags by*

Charles F. Hubbs & Co., Cohoes, N. Y. "Cel-O-Seal" bands by E. I. du Pont de Nemours & Co., Inc., Wilmington 98, Del. Labels by Avery Adhesive Label Corp., Monrovia, Calif. Corrugated cartons by Robert Gair Co., Inc., 155 E. 44 St., New York 17.

Schenley's clear glass

[*Continued from page 85*]

for a multi-million-dollar advertising campaign using newspapers, magazines and outdoor media and lasting from now until 1959.

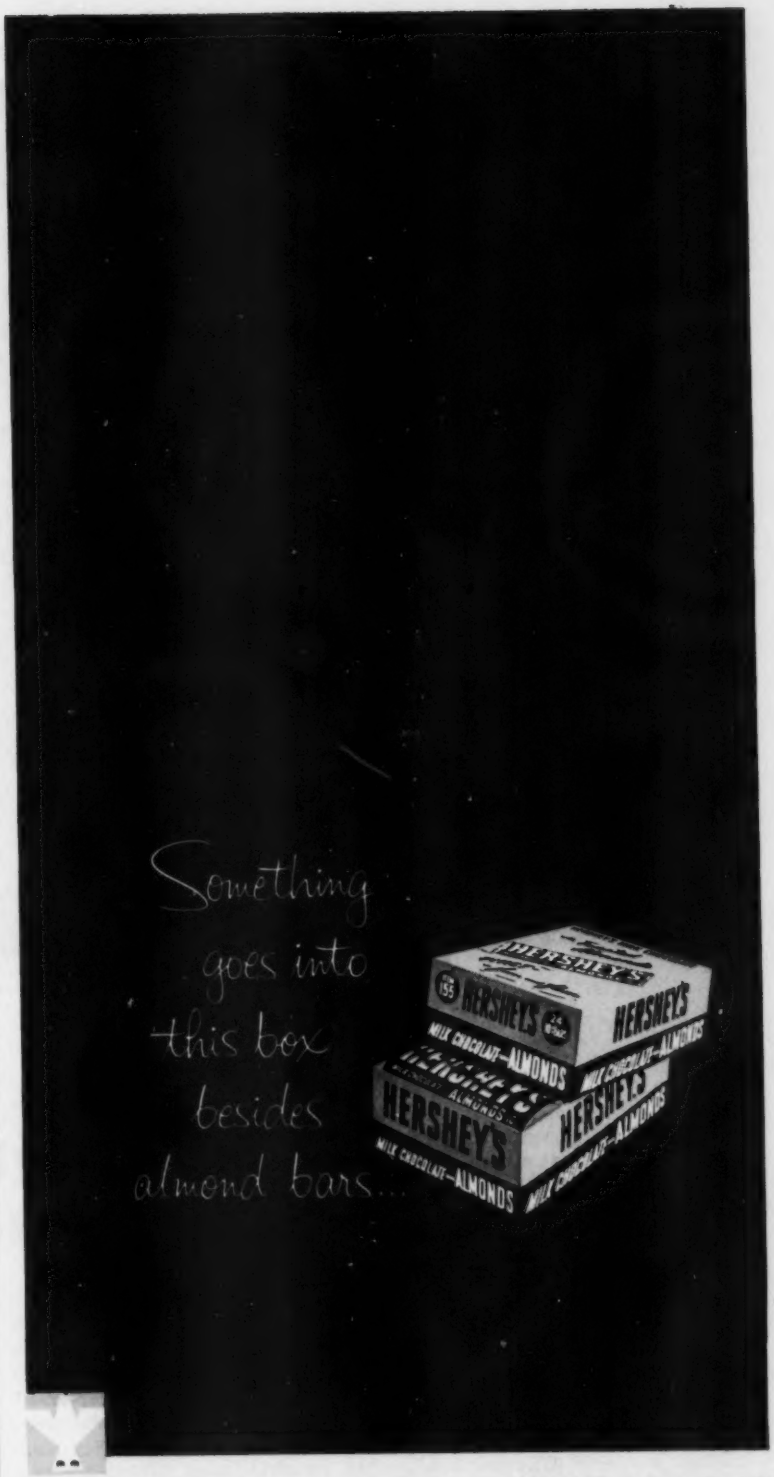
A key role in this campaign is to be played by point-of-purchase advertising in bars and liquor stores, for which Schenley has developed its revolutionary new AdverCase. This is a shipping container which, after being emptied of its contents of bottles, may be turned into an assortment of display pieces using every inch of ordinarily discarded shipping container surface.

One of the big problems in point-of-sale liquor merchandising has been the extremely large number of places in which alcoholic beverages are sold—as many as 190,000 outlets, the industry estimates. Almost always, it has been much too expensive for any company to provide every one of these stores and taverns with conventional display material. Now, with its AdverCase, Schenley believes that it can do just that.

The new case has a white exterior that looks much the same as an ordinary carton. But once it is opened, the AdverCase bears no resemblance to a conventional case. Inside, every bit of usable surface in the carton itself, liners, pads and partitions is printed or lithographed with display pieces of all sorts—window and counter displays, stacking devices for bottles, large banners, even games to play at the bar —which can be easily punched or cut out.

Naturally, Schenley is not planning to transform every one of its shipping cartons into these clever (and expensive) packaged loads of advertising material. But a one-out-of-five ratio of AdverCases is contemplated, with the assurance that each of the country's 190,000 liquor outlets will get at least one to help promote the new bottle.

Credits: *Bottles by Owens-Illinois Glass Co., Toledo 1, Ohio; Thatcher*



NATIONAL FOLDING BOX
COMPANY DIVISION
FEDERAL PAPER BOARD COMPANY, INC.

SALES OFFICES: CHRYSLER BUILDING, NEW YORK 17, N.Y.; NEW HAVEN AND VERSAILLES, CONN.; BOGOTA, N.J.; BOSTON AND PALMER, MASS.; STEUBENVILLE, OHIO; PHILADELPHIA AND PITTSBURGH, PA.
FOLDING BOX PLANTS: BOGOTA, N.J.; NEW HAVEN AND VERSAILLES, CONN.; PALMER, MASS.; STEUBENVILLE, OHIO; PITTSBURGH, PA.
PAPER BOARD MILLS: BOGOTA, N.J.; NEW HAVEN, MONTVILLE AND VERSAILLES, CONN.; READING, PA.; STEUBENVILLE, O.; WHITE HALL, MD.

Bracon . . . SQUEEZE-TO-USE PACKAGING

. . . for the tender touch

Tender hands get loving care when applying Johnson & Johnson's First Aid *Cream*. A gentle squeeze to the pliable plastic tube releases just the right amount to soothe and heal cuts or sore spots.

Johnson & Johnson selected BRACON squeeze-to-use tubes to merchandise their new product because they found women preferred them. In fact, 82% of those interviewed indicated a definite preference for these bright and colorful containers. They found them softer . . . more pleasant to the touch . . . and more convenient from first to last. Here they found the tube that wouldn't crack, leak, roll up *or* dent.

Over three hundred different consumer and industrial commodities are now packaged in the *new* type of container . . . BRACON squeeze-to-use tubes or bottles. Many concerns are filling and sealing in their own plants . . . others use contract packaging facilities.

Why not analyze the merchandising advantages of BRACON squeeze-to-use packaging for your products . . . phone or call for specific information today.

BRADLEY CONTAINER CORPORATION

Maynard, Mass. — *New York, Chicago, Los Angeles*

Glass Mfg. Co., Elmira, N. Y., and Anchor-Hocking Glass Corp., Lancaster, Ohio. Phenolic closures by Owens-Illinois Glass Co. and Armstrong Cork Co., Lancaster, Pa. Labels by Muirson Label Co., Peoria, Ill.; Nielson Lithographing Co., 4142 Airport St., Cincinnati, Ohio, and Cameo Die & Label Co., 154 W. 14 St., New York 11. "Adver-Case" shipping cartons by Hankins Container Co., 14801 Emery Ave., Cleveland 11, and Owens-Illinois Glass Co.

Notions and novelties

[*Continued from page 107*]

similarly to the way containers roll down in a Food-o-Mat. Although this packaging system is only about a year old, Coats & Clark reports that thousands of stores have already changed to Coats & Clark zippers because of the convenience and sales appeal of the new packaging.

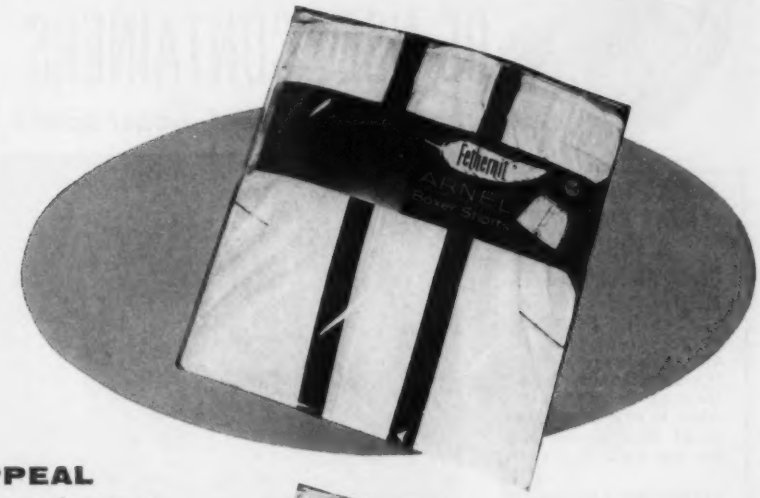
The packages, reportedly, are filled entirely automatically on specially designed equipment, the details of which the company is not yet publicizing.

Best advice that can be given to any manufacturer catering to the notions field is to adopt the basic packaging practices that have been successful in all types of selling in open display:

1. Carry complete information about the product on the package.
2. Keep counter space saving in mind.
3. Select sturdy packages that will withstand rugged handling.
4. Adopt packages that are pilferproof and tamperproof.
5. Provide price spots and even pre-price standard items.
6. Design packages that attract the impulse shopper.
7. Provide strong brand identification to assure point-of-purchase tie-in with national advertising.

The ever-changing panorama of notions counters is good indication that notions buyers are constantly on the lookout for profitable new items. There's good opportunity here for the manufacturer whose packages recognize retail operating problems and meet the demands of the steady stream of women shoppers who come, maybe, only for a spool of thread, but leave with several other purchases simply because they can't resist the thousands of intriguing packaged items in self-selection display.

MYLAR*—A TOUGH FILM
for tough packaging jobs

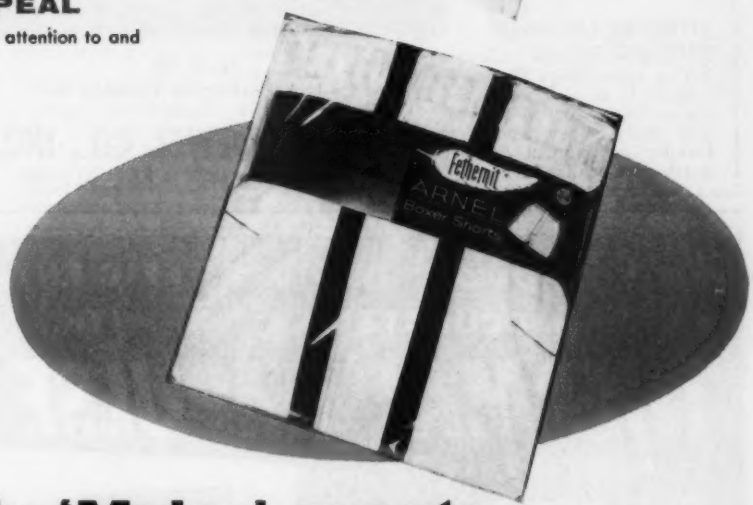


VIVID CLARITY

Du Pont "Mylar" polyester film lets shoppers "see for themselves"... clearly shows quality, texture, and weave.

SPARKLING SALES APPEAL

"Mylar" is rough, tough, and stylish . . . attracts attention to and protects products of any size or weight.



DURABILITY

"Mylar" won't crack, dry out or shrink—gives quality products the lasting good looks they deserve.

"Only 'Mylar' meets all our packaging requirements"

says Aubrey M. Evans, President, Duofold, Inc.

"We selected Du Pont 'Mylar' for our new 'Arnel' line of quality shorts for a definite reason," reports Duofold, Inc., Mohawk, New York. "We wanted to obtain the strongest, completely transparent film available—one that wouldn't shrink or become brittle. 'Mylar' does the job!"

"Mylar" can do a job for you, too! It gives quality products standout display and protection... offers hard-to-package items the sales advantages of *visibility*.

Let "Mylar" help *you* open new markets, gain better display, attract more sales. Contact your Du Pont representative or converter of "Mylar" polyester film; or mail the coupon for more information on this remarkable new packaging film.

*"*Mylar" is Du Pont's registered trademark for its brand of polyester film.*

DU PONT
REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

DU PONT ® MYLAR POLYESTER FILM

E. I. du Pont de Nemours & Co. (Inc.)
Film Dept., Room MP-4
Wilmington 98, Delaware

Please send me information on packaging uses of "Mylar" polyester film.

Name_____

Firm_____

Address_____

City_____ State_____

a new way
to glamorize your product

BEAUTIFUL **PLASTIC**

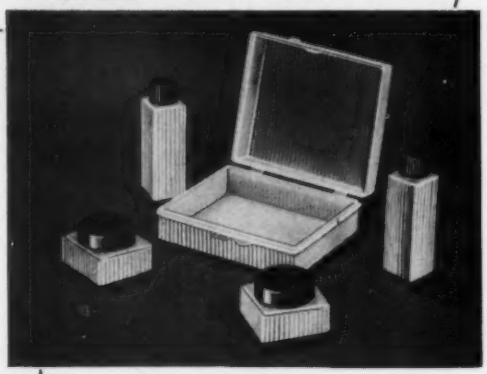
RE-USE CONTAINERS

Add that extra appeal-boost sales!

A FULL LINE TO SUIT MANY PRODUCTS & PURPOSES

Cosmetic Kit *illustrated:* Made of odorless, unbreakable jewelene polyethylene. Alcohol and perfume proof. Stain resistant. Easily cleaned in hot water. Also available without small bottles and jars for use as utility case.

ATTRACTIVE CONTAINERS NOT SHOWN INCLUDE: Filagree 3-Tier Jewel Box; Handbags crafted in several jewel-tone styles; Candy or utility boxes also made in several styles; Powder box, exquisite jeweled finish with scalloped edge.



Send for
Re-Use Packaging Catalog M-1

PLASTIC JEWEL CO., INC.
1112 BROOK AVE. BRONX 56, N.Y. Wy 2-4900

Help Yourself TO MORE EFFICIENT, EASIER, ACCURATE SEALING WITH...

THERMAL IMPULSE

HEAT SEALERS

Uniform, positive Sealing and Trim-Sealing WITHOUT continous heat . . . For ALL Thermoplastic films such as Polyethelene, Pliofilm, etc., etc., up to .006" thick . . . Seals through Wrinkles, Gussetts, Liquids and Powders . . . Instantaneous heat, no warm-up time needed . . . Hand, Foot-Pedal and Power Operated models up to 42" long or designed for special application . . .

Manufactures ... 2,460,460 2,574,095 2,633,433
... or more ... 2,479,439 2,621,704 2,646,105
... following patents ... 2,574,094 2,630,396 2,650,183

Names and Addresses of all of our Exclusive Representatives

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HERMAN & LEAL, LTD.
468 McGill St. Montreal, P.Q.

WESTERN
WEST COAST PLASTICS DISTRIBUTORS, INC.
8510 Warner Drive, Culver City, California

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THERMAL IMPULSE HEAT SEALING MACHINERY
2037 Utica Avenue, Brooklyn 34, N.Y.

Elegance in cookies

[*Continued from page 113*]

two shades of emerald green for the Capri package and gold brocade for Biarritz.

The Venice carton background is white, while the Bordeaux package is white with a turquoise moire ribbon effect. The Brussels package has a delicate, small-patterned background design in lavender-blue on a black background. Family identity on all is maintained by the PF trademark.

To emphasize the royal background, the Belgian coat of arms appears on each package, along with this statement signed by Margaret Rudkin, director of Pepperidge Farm: "These superior 'biscuits' have been made according to the recipes and techniques of Delacre, Court Baker to the Royal House of Belgium since 1879."

The package designs had to be approved by the Belgian firm before their final acceptance by Pepperidge Farm.

The cookies have also been given high-quality package protection. The cellophane carton-overwrap is saran coated. The cartons are foil laminated on the inside to preserve freshness. The cookies are packed in corrugated waxed paper cups and enclosed in corrugated waxed paper liners to prevent breakage. A final touch of elegance is provided by a single sheet of cellophane that covers the top layer of cookies in the manner of fine chocolate packaging, printed with a repetitive design of the PF trademark printed in red and gold.

The packages are assembled and packed by hand, except for the saran-coated-cellophane overwrap, which is machine applied.

Credits: *Design program by Jim Nash Associates, Inc., 405 E. 54 St., New York 22. Cartons in "Fidel-i-tone" process by The Lord Baltimore Press, Inc., 1601 Edison Hwy., Baltimore 13, Md. Corrugated waxed paper cups and liners by Oldmill Paper Products Corp., 33 St. & Skillman Ave., Long Island City 1, N.Y. Saran-coated K-202 cellophane by E. I. DuPont de Nemours & Co., Wilmington 98, Del. Cellophane inserts printed by Shellmar-Betner Flexible Packaging Div., Continental Can Co., Mt. Vernon, Ohio. Wrapping machine by Package Machinery Co., East Longmeadow P. O., Springfield, Mass.*

Informative bug killer

[*Continued from page 119*]

of a new standard trademark and logotype. Niagara approved the entire suggested program and gave the designers a clear track.

Areas of simplification

Of key importance was the creation of a new Niagara trademark. Some 20 different trademark variations were scrapped and a simplified, modern logotype trademark evolved to retain strongest features of former variations for use on all forms of company identification.

Overlapping products which had grown into the line over a period of many years were eliminated, eventually reducing the number of items to a total of 29.

Wherever possible, "trick" names that did not convey specific meanings were dropped and straightforward "ingredient" and "use" names were substituted. Typical of these changes are: Potato and Tomato Dust or Spray replacing C-O-C-S Potatox Dust or Spray; Blight Dust instead of C-O-C-S Copodust; Bordo as a simplified spelling for Bordeaux Mixture; Garden Dust or Spray replacing C-O-C-S Cuke and Melon Dust.

All instruction copy on the labels was re-organized into easy-to-read chart form. These charts can be read and understood almost at a glance.

This feature is also an added convenience for consumers who generally use the products outdoors where lighting may not be ideal for reading and where eyeglasses are not readily at hand.

Previously it had been necessary to read through long paragraphs of fine print to find required instructions, which not only made the packages harder for consumers to use, but difficult for sales people to sell, since retailers are dependent on label copy for the instruction of sales people.

The new simplified chart form not only offers adequate easy-to-see information for training sales personnel, but helps the shopper to serve himself.

Package types

For further easy shelf identification, the designers divided the products into four basic types for pack-

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the manufacturers' literature page

You ought to be. It's the page, in every issue of MODERN PACKAGING Magazine, that describes a wide variety of pamphlets, brochures, and other manufacturers' publications which are currently available *without charge*.

To obtain any of the literature which is listed, you merely fill in and mail the postage-free reply card. We do the rest. Look for the Manufacturers' Literature Page in each issue of MODERN PACKAGING. It is easy to recognize because it is printed on heavy yellow paper. It is your key to detailed information about packaging equipment, supplies and services.

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Brooklyn 31, New York

age color coding: blue-green background for products to be used chiefly on fruits; bright leaf-green for products to be used chiefly on flowers; earth brown for vegetables, and bright mustard yellow for products which are general-purpose insect and pest killers. These four basic background colors are used throughout the line.

Rectangular metal-end fibre canisters have replaced round cans and lined paper bags in one- and three-pound sizes for powder formulations to provide more effective display and greater convenience for packing in shipping containers and because, it is believed, they are easier for the consumer to use.

The new rectangular-shaped packages, although containing the same amounts of net weight, offer larger display areas than the round ones. And 12 one-pound canisters are now packed in a shipper one-third smaller than previously. These new shippers feature an adaptation of the package design format, produced in red and green, accompanied by carefully planned, easy-to-read, identification copy. Glass containers are used for liquid products.

The parabolic shape for the general format, which creates the "picket fence" effect when the canisters are used in mass display, is a strong attention getter that quickly associates the products with garden usage and distinguishes the Niagara family. This "picket fence" device is also used on all shipping containers and in all advertising and promotional material.

Illustrations are used extensively throughout the line, not only on the front panels of the packages, but on side panels where line drawings of the insects which the various products control are featured. The consumer may choose the proper product for his needs simply by picking out the appropriately illustrated plant and/or insect shown on the labels of the canisters.

The company is supporting the new packages with a 1956 advertising and promotional budget reportedly 300% above that of last year.

Credits: *Design program by Design Associates, Ltd., 1 E. 53 St., New York 22. Labels printed by Rochester Lithograph Mfg. Co., 95 Mount Read Blvd., Rochester, N. Y. Canisters by The Cleveland Container Co., 6201 Barberton Ave., Cleveland 2, Ohio.*

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LABELS

Pressure Sensitive

NO GLUE!

Easy as 1, 2 to Apply!

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Gone is the glue pot! Gone is water! Steigerwald Sensi-Stick pressure sensitive labels eliminate forever old-fashioned start-up and clean-up labeling machine jobs.

Sensi-Stick simplifies labeling to a 1, 2—pick and stick quick way—Individual labels or Dispenser automatically feeds individual labels on a tape ready for rapid application.

Economical — Faster Better for all surfaces

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FOR SALE: Box machines; Packaging machinery; Fillers; Mixers; Labelers; Cappers; Case Sealing Equipment; etc. What idle equipment do you have for sale? Consolidated Products Co. Inc., 61 Garden Street, Hoboken, N. J. HO 3-4425. New York Tel: BA 7-0600.

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FOR SALE: Several Simplex Polyethylene Bag Machines, 4-7 and 24-7. All in working condition and now in use. Priced at 40% the cost of new machines. Box 324, Modern Packaging.

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Machinery and Equipment Wanted

WANTED: Pneumatic Scale Packaging Line, Capper, Labeller, Cellophane Wrapper. P. O. Box 1351, Church St. Station, New York 8, N. Y.

WANTED: For payment in cash one Simplex No. 1 or No. 4 fold over bag machine. Must be in good working condition. Preferably operating at present time. Please write Box 322, Modern Packaging.

Help Wanted

PACKAGE DESIGN SALES EXECUTIVE: One of the largest package design consultants in New York has an opening for a sales executive to solicit nationally known manufacturers of packaged merchandise. He should have the following background and characteristics: Substantial experience in packaged merchandising, materials and techniques and ability to use this experience effectively. Creative, imaginative and inventive, yet practical. Able to verbalize ideas rapidly whether oral or written. Ability to understand motives of others and size up complicated human relations situations. Enjoy contact work and find persuading others rewarding. Able to work with sustained concentration and to pay proper attention to both details and the overall aspects of the job. An effective organizer and administrator able to grow into a position of top level responsibility and decision making. Our staff knows of this ad. Replies will be held in strict confidence. Box 317, Modern Packaging.

MIDWEST CONVERTER: Supplying Polyethylene and other flexible packaging materials since 1911, has several openings in territories exclusive of East and West coast. Commissions paid on all sales in territory. Reply, giving lines carried and manufacturers represented. Box 318, Modern Packaging.

REAL OPPORTUNITY FOR SALESMAN: Metropolitan, New York area. Progressive Eastern corporation with proven line of flexible packaging materials. Group insurance, pension plan, salary plus commission. Knowledge of uses of films and laminates desirable. Box 320, Modern Packaging.

MANUFACTURER'S REPRESENTATIVE: Aggressive, medium-sized Eastern corporation, manufacturing line of flexible packaging materials, wants agent in New England States. Good potential. Box 321, Modern Packaging.

QUALITY CONTROL SUPERVISOR

For a nation-wide paperboard manufacturer. Applicant should have Quality Control experience in the paper field and a knowledge of printing and carton manufacturing. Must be willing to relocate in Western New York. Liberal company benefits. Write giving complete education and business experience. Please include your telephone number.
Box 328, Modern Packaging

PLASTIC SALES ENGINEER: We are seeking a well qualified man experienced in plastics extrusion for attractive Market Development position. Kindly give your education, experience, and expected salary in complete resume. All replies will receive careful attention and will be held confidential. Write: 108 Personnel Department, Chemical Division, Koppers Company, Pittsburgh 19, Pa.

POLYETHYLENE BAGS: Expanding converter has additional commission opportunities in many areas for manufacturer's representatives with compatible lines. Uniquely advantageous bag constructions and printing. Excellent income possibilities for men who can promote superior polyethylene packages. Give area and industries covered and present lines. Box 332, Modern Packaging.

WANTED: Leading manufacturer of packaging equipment has opening for graduate engineer with experience in the packaging industry. Applicants must be experienced in design, development and modification of automatic machinery and must be capable of supervising production. Excellent opportunity with long established firm. Salary commensurate with capabilities. Box 331, Modern Packaging.

SALESMAN WANTED: Well established polyethylene converter is adding to its sales force. An excellent tie-in line for an aggressive salesman now handling packaging materials and similar items. Wonderful opportunity with commissions and competitive prices. We are equipped for volume production runs. Please send full particulars on experience, territory, coverage and other lines presently handling. Box 333, Modern Packaging.

SALES AGENTS-MFRS. REPS: Wanted by leading well established manufacturer of flexible packaging films. Because of our extensive expansion program, we are now in a position to service additional territories. We extrude, print and manufacture polyethylene bags; print and convert cellophane rolls, bags, and sheets as well as other transparent films. Also manufacture a complete line of resale polyethylene freezer bags and kits. Several territories open to aggressive men or organizations experienced selling to jobbers and/or direct to industrial users and packers. State territory covered, present lines, commission basis. All replies held in strict confidence. Our men have been notified of this ad. American Cellophane & Plastic Films Corp., 32 South Market Street, Boston, Mass.

PRODUCT DEVELOPMENT ENGINEER: Opportunity available with large integrated manufacturer of paper products for packaging engineer to work on corrugated box development and marketing problems. Will headquarter in New York City and make sales contacts in the field. College degree required and 2-4 years' packaging experience desirable. Age 26-35. Salary open. Send resume giving complete details on experience, education, job interests and salary desired. Box 336, Modern Packaging.

(Continued on page 230)

ALUMINUM FOIL

For the Independent Converter

E. Taranger, Inc., over many years, has furnished the independent converter a reliable, diversified and economical line of foil in widths up to 40". Taranger's "know how" and dependable service are yours for the asking.

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The Country's Largest Manufacturer of FLOCK
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Are You Missing Out On INCREASED SALES?

Department, Specialty, Variety and Chain store sales records prove that products packaged in semi-rigid plastic containers show a greater profit margin, because packaging means:

- **Complete visibility with product protection.**
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- **Impulse buying.**
- **Multiple-unit sales.**
- **Incentive of a re-usable container.**
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- **Less sales help needed.**
- **No markdowns due to handling and soiling.**

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Whether you produce soft goods or hard goods, cosmetics or confectionery, or any other product in a thousand and one fields, you will find that acetate packaging will enhance the beauty of your product and increase its sales.

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- Multiple-unit sales cut individual item packaging expense.

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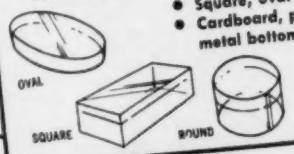

MAKE THIS TEST

Send us your product. We will make a sample package in the correct size and shape and send it back to you with a complete packaging estimate. There is no charge nor obligation for this service. Don't guess whether Viz-Pak can help you—make sure! For samples, information or quotations, write or phone:

World's largest manufacturer of semi-rigid plastic containers

Development Division

J. E. PLASTICS MFG. CORP.

555 W. 23rd St., New York 11, N. Y.—Oregon 5-6789

(Continued from page 228)

ADHESIVE CHEMIST: Creative chemist with 3-5 years experience in formulation and application of industrial adhesives, particularly vegetable and resin based products. Excellent opportunity for man with initiative, who is capable of working with a minimum of supervision. Location Chicago, Illinois. Send detailed information on education, experience and salary desired. All replies confidential. Box 335, Modern Packaging.

Situations Wanted

EXECUTIVE: Desires association with company where management, imagination and creative ability are in demand. Accustomed to work at administrative and policy making level. Heavy and diversified experience includes technical, production, sales and new product development of coated and laminated Plastics, Films, Foils, Paper, Textiles, etc. Have 25 years of background to enable a company to enter, expand, and diversify production and sales in these fields. Well acquainted with equipment required to use adhesives, plastisols, coatings, waxes, etc. Will be an asset to company where practical, broad and intimate knowledge is essential and desired. Box 319, Modern Packaging.

SITUATIONS WANTED: Manufacturers Agent now handling transparent packaging films desires additional lines such as cartons, labels, waxed wraps for food, textile, tobacco trade in North and South Carolina. Box 329, Modern Packaging.

FOLDING BOX SALESMAN: For New York Metropolitan area. Experienced packaging specialist. College background. Box 337, Modern Packaging.

PKG. & MATERIAL HANDLING EXEC.: 16 years experience developing packages from specifications through shipping, including methods and procedures, personnel training, supply control and purchasing of equipment—working with and without salesmen; thorough knowledge paper, corrugated and crating. Seeking career position requiring imagination, integrity and practical know-how in both production and sales. Box 330, Modern Packaging.

MANUFACTURING AGENT AVAILABLE: In the St. Louis area and Midwest—Chemist, B.S. graduate—three years sales experience in raw materials to the plastic industry for an Eastern chemical company. Desires to handle flexible film; extruded and molded plastic products to the packaging trade. Box 326, Modern Packaging.

PACKAGING CHEMIST-ENGINEER: Ten years experience in flexible packaging materials production, development, including coating, laminating, gravure and flexographic printing of paper, cellophane, foil, films. Can handle product development, production, production planning, quality control, purchasing, personnel. Presently employed as Production Manager. Total 15 years diversified technical experience. All correspondence confidential. Box 327, Modern Packaging.

CREATIVE SALESMAN-PACKAGING: Employed by printer—converters of cellophane, polyethylene. Prior five years experience selling, merchandising, promoting new products, metals, plastics. Age 26, top educational background, potential high-level executive. —all this and a good pair of feet!—This intelligent, imaginative, ambitious individual seeks position with very promising future and company Alive and Growing. New York Metropolitan or nearby area. Box 334, Modern Packaging.

FLORIDA: If you are thinking of opening a branch operation, or of establishing a sales office, or need representation in Florida, please write in detail. An able, conscientious man awaits your reply and is ready to serve you. 15 years experience in Flexible Packaging, and top references, too. Box 331, Modern Packaging.

Miscellaneous

BRITISH BUSINESS EXECUTIVE: Head of progressive packaging concern with European connections, visiting New York April, wishes to contact American organizations or individuals interested in extending their activities to Great Britain and Europe. Box 325, Modern Packaging.

All classified advertisements payable in advance of publication

Closing date: 10th of preceding month, e.g., April 10 for May issue

Up to 60 words $10.00	Up to 120 words $20.00	Up to 180 words $30.00
Up to 60 words (boxed) $20.00	Up to 120 words (boxed) $40.00	Up to 180 words (boxed) $60.00

For further information address Classified Advertising Department, Modern Packaging, 575 Madison Avenue, N. Y. 22, N. Y.

Modern Packaging reserves the right to accept, reject or censor classified copy.

Quick Quiz FOR PACKAGING SUPPLIERS

Q. *Which packaging magazine provides the greatest amount of helpful editorial material and how-to-do-it information for its subscribers?*

A. An actual page-by-page count reveals that MODERN PACKAGING routinely carries more than twice as many pages of editorial matter as any of the other publications in the packaging field.

Q. Which magazine is the first choice of packaging advertisers?

A. Judged by the votes of the men who should know best—the companies and advertising agencies who back their opinions with advertising appropriations—MODERN PACKAGING is far and away the field's most powerful and influential medium. **In 1955, MODERN PACKAGING carried the advertising of 60% *more* packaging suppliers than the second-place publication!**

Q. Which packaging magazine presents the greatest volume of advertising?

A. Again the answer is MODERN PACKAGING! The record shows that in 1955 MODERN PACKAGING carried 2,309 pages of advertising as against 1,125 for the second publication. That's a 2-to-1 lead!

Q. Which of the magazines is the oldest and most influential in the field?

A. The records show that before the first issue of MODERN PACKAGING, back in 1927, packaging was not clearly recognized as one of the greatest single factors in modern merchandising and distribution. MODERN PACKAGING pioneered that idea and has been largely responsible for establishing packaging operations on a sound and scientific basis.

If you make anything that packagers buy, you'll want to know more about MODERN PACKAGING as an advertising medium: who it reaches, how it stimulates buying action, how much it costs to deliver your sales messages in it. Just write to Advertising Department, MODERN PACKAGING magazine, 575 Madison Avenue, New York 22, N. Y.

1 This dressy polyethylene bag makes product stand out among competitive items. Bag is punched for use on display rack and has ample display space for advertising copy. Bag by Dura-Lee Corp., Kansas City, Mo.

2 This bag combines a free film liner with a super-calendered white kraft pique embossed outer sheet. Liner has heat sealed seam and bottom. Produced by Arkell and Smiths, Canajoharie, N. Y., for Jackson & Perkins Co., Newark, N. Y.

WHAT'S NEW IN polyethylene packaging

Selected outstanding examples of the newest in polyethylene packaging. (These packages weren't necessarily made of "Poly-Eth" Polyethylene, but they're too good to miss.)

Wherever you look these days—at packaging shows, at super markets, in department stores—the packaging material everyone is talking about is the strong, lightweight, flexible plastic, Polyethylene. A few of today's most exciting new Polyethylene packages are shown on this page. You, too, can get on the Polyethylene bandwagon! We'll be glad to direct you to processors who produce Polyethylene packages. Just write, "Poly-Eth," Spencer Chemical Co., Dwight Building, Kansas City 5, Mo.

Poly-Eth® by SPENCER

SPENCER

3 The product in use is dramatically pictured in this polyethylene package for "Terry-Togs" Slip-On Seat Covers. The package also lists a variety of product features. Produced by Milprint, Inc.

4 Here is an example of how colored polyethylene can give eye appeal to an otherwise undecorative product. Bag is blue and attractively printed in three colors. Produced by Crystal Tube Corp., Chicago.

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